Leadership, Employee and Competency Development for Better Talent Management in the Face of the Dynamics of Environmental Changes

edited by Łukasz Haromszeki

Publishing House of Wroclaw University of Economics and Business

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Elżbieta Macauley, Tim Macauley, Joanna Świrska-Korłub

Copy-editing
Joanna Świrska-Korłub

Typesetting
Adam Dębski

Cover design
Beata Dębska

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CONTENTS

PREFACE

Nowadays, it is practically impossible to address the issue of talent management and the inextricably linked aspects of leadership, employee and competency development without using a situational approach. This approach allows not only to analyze the key aspects of talent management (Blass, Knights, and Orbea, 2006; Collings and Mellahi, 2009; Farndale, Scullion, and Sparrow, 2010; Kabwe and Tripathi, 2020; Lewis and Heckman, 2006; Scullion, Collings, and Caligiuri, 2010; Shet, 2020; Stor and Haromszeki, 2021), leadership (Bryman, Collinson, Grint, Jackson, and Uhl-Bien, 2011; Freye, 2015, Haromszeki, 2020; Tourish, 2013;) and competency management (Buzady, 2016; Hawi, Alkhodary, and Hashem, 2015; Koon and Ho, 2021; Poór, Engle, and Brewster, 2015; Rakowska and de Juana-Espinosa, 2021; Stor and Haromszeki, 2020), but also the existing contexts, taking into account the new circumstances and relations between chosen variables.

Talent management is understood here as the process to attract, retain, motivate and develop talented employees in accordance with the needs of the organization (Armstrong, 2007, p. 354). The choice of this as the leading definition is deliberate. It includes many ways of defining not only talent, but also the approaches to development of employees, taking into account their competences and situational, contextual, internal and external organizational factors. Hence, assuming that the modern situational approach represents shaping short and long-term activities in the organization based on current and in-depth analysis of reality and multi-range anticipation of the future, it can be considered that the aspects presented in this monograph are a look at talent management from different perspectives. The presented multi-range approach creates conditions for stable development based on conscious and purposeful investment in human capital. It focuses not only on employees and managers of various management levels, but also on diverse areas, processes and practices within the organization, shaping pro-development organizational cultures.

This monograph, although taking into account very different aspects, fits in with this approach, presenting an inexhaustible source of opportunities for empirical research and scientific discourses.

The book is divided into three thematic parts which, in line with their titles, focus on:

- Part I. Organizational perspective on talent and leadership practices – showing chosen abilities, talents and virtues; Chapters 1 to 3.
- Part II. Competency development for knowledge management – presenting ways for making the most optimal possible use of knowledge and information; Chapters 4 to 6.

- Part III. Selected situational factors of professional development – describing internal and external conditions; Chapters 7 to 9.

In Chapter 1. the author presents the research results on the impact that the value ascribed to human resources as a strategic competitive factor a company may exert in the advancement level of organizational leadership practices and talent management in 200 multinational companies (MNCs). These research findings complete some of the gaps in research that have been identified in management literature, especially the relation between the activities undertaken within the field of HRM, and particularly organizational leadership and talent management, performed by MNCs with regard to the position that human resources occupy among the competitive factors of these companies.

In Chapter 2. the authors present the discussion on the subject of talent, both in a scientific and business sense, and their own results of the research indicating solutions that are applied in organizations in the sphere of talent management. The research was conducted on a group of 11 enterprises that declared the application of programmes of talent management in practice. The empirical research focused on chosen aspects of talent management, such as: positioning of TM program, tools within framework of audit of talents, tools in processes of attracting candidates, identification of talents within organization, evaluation of positive development activities in TM, motivators applied in retention of talents, and effectiveness of TM programs.

In Chapter 3. the authors, by treating sustainable development as an imperative for the management of organizations in the post-Covid future, try to verify the utility of humility as a managerial 'virtue' to overcome the crisis and ultimately re-evaluate the traditional model of development subordinated to GDP growth and driven by consumption. In their study, based on synthetic review of the literature, humility, its dimensions and role in the organizational context were defined. Empirical research via the Internet was conducted. After verification, 338 questionnaires qualified. The major aspects of the study covered: the role of humility, consequences of the lack of humility in an organization, ranking of the dimensions of humility, relationship of humility with other managerial virtues, the relation – personality types and humility, and finally – the assessment of the impact of the current pandemic situation on the increase in the share of humility (its manifestations) in management practice.

In Chapter 4. the author adresses the approach based on conviction that knowledge is omnipresent in an organization, its importance is self-evident. The chapter highlights the fact that a review of knowledge processes usually places it in the initial phases, and its emergence is linked to the use of different tools, and the result is knowledge of various kinds. Using knowledge requires having the appropriate competences. By implementing 30 statements of a narrative nature, the specific situations of employees was described, in which they obtained two types of knowledge: 'before' and 'during'. According to the author, the second type of knowledge creates relations that support and develop employee's talent.

In Chapter 5. the author demonstrates how important competences are, especially those needed to analyze employees knowledge and skills and conditions existing in organizations. The author points out that projects and processes are not only carried out simultaneously, but are often treated as one, due to the many shared characteristics. In existing circumstances, Integrated Process Management (IPM) is one of the most comprehensive management concepts which takes into consideration the role of projects and knowledge in organizations. The perception of employees as human resources that could be tapped into in order for the organization to learn, develop and gain a competitive advantage seems crucial for the successful implementation of IPM. If one assumes that for managers of process-oriented organizations, human resource management is a strategic function, it is important to identify the areas of HRM that contribute most significantly to the organization's evolution towards IPM.

In Chapter 6. the authors presents and analyzes competences dominating in the concept of Industry 4.0, especially digital competences. The authors stress that because of a lack of competence gap indications, their research results show an insufficient or inadequate level of employees' competences necessary to meet the requirements of their current job. They also tried to find competence gaps in the programming, in terms of information and data literacy, digital content edition and the use of office software and in the field of cyber security. The authors plan to continue with their research.

In Chapter 7. the author deals with the subject of challenges for HRM in the dynamic times of VUCA. The author indicated that, as never before, the ability to identify and shape appropriate employee attitudes is becoming increasingly important. This chapter attempts to define the idea of employee propensity for professional self-development, and presents the author's own method of its measurement, based on the available literature. There are also included the results of the author's research presenting how the characteristics of the respondents differentiate the method of planning the realisation of goals, as well as the analysis of relations between employee propensity for professional development and their ability to reach goals.

In Chapter 8. the authors highlight that the key factor of successful human capital acquisition is onboarding as a very important stage of staffing complementary to recruitment and selection, in fact verifying real talents and competences of an employee, inscribed in the process and work environment in order to ensure efficient organizational and interpersonal functioning in a given employee community. The authors, taking into account the COVID-19 pandemic context, try to find the answer on the general question of whether there has been a shift of emphasis in the implementation, adaptation and integration of new employees to organizational structures in the IT services sector as a result of pandemic conditions, and to what extent onboarding in such a configuration is rational and effective for the employee and the employer. The authors consider whether the efficiency of virtualized onboarding in the case of a specific organizational culture of companies in the IT industry can be assessed.

In Chapter 9. the authors question if finding ourselves in the reality of VUCA requires having the ability and competences to build the approach towards error with regard to the idea of establishing operational efficiency. When analyzing the subject literature, the authors considered the impact not only on the individual but also on groups, teams and organizations. The various considered aspects concern the approach to error in actions by the performers of the action, and the reception of such errors by the environment, as well as the possible role of error in the aspect of operational efficiency in the VUCA world. The authors emphasize that the discussion started in this chapter is an introduction to undertaking empirical research and formulating recommendations for business practitioners.

With reference to the introduction to the content of the chapters, it is worth stressing that the purpose of this monograph is to present diverse aspects, factors and components that shape talent management in an organization. The current situation, determined by the dynamically changing reality, proved to be relatively stable until the emergence and development of the coronavirus epidemic, and the new geopolitical reality following the war in Ukraine. In these circumstances, the issues described in this monograph take on a completely new meaning.

This monograph is addressed to people interested in the issues of talent and competency management, leadership and the broadly understood development of employees in the organization – both researchers and practitioners – and all those who, inspired by it, would like to deepen their knowledge in the given field.

Łukasz Haromszeki

Part I

ORGANIZATIONAL PERSPECTIVE ON TALENTSHIP AND LEADERSHIP PRACTICES

Chapter 1

COEXISTENCE OF TALENT MANAGEMENT AND LEADERSHIP PROGRAMS AS AN IMPORTANT COMPETITIVE FACTOR IN MNCs

Łukasz Haromszeki[a]

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1.1. Introduction

The changes taking place in recent decades have increased competition in various parts of the world. Polish companies are becoming more and more dynamically involved in global competition, gaining a higher position. The basis for competing in the market is related to a number of competitiveness factors (Dagdeviren, Lund-Thomsen, and McCann, 2016), which also include human resources management and within its framework, talent management (TM) and the formal shaping of leadership traits and relationships in the organization.

The main aim of this chapter is to present the research results on the impact that the value ascribed to human resources as a strategic competitive factor a company may exert in the advancement level of organizational leadership practices and talent management in multinational companies (MNCs). These research findings complete some of the gaps in research that have been identified in management literature.

In fact, the literature review leads to the conclusion that although a considerable bulk of research on HRM, including organizational leadership and talent management, has been conducted in multinational companies (MNCs) and their local subsidiaries in different countries (e.g.: Brewster, 2007; Cooke, Veen, and Wood, 2017; Dickmann, Brewster, and Sparrow, 2016; Mayrhofer, Brewster, Morley, and Ledolter, 2011; Melnikas, Baršauskas, and Kvainauskaitė, 2006; Nikandrou, Apospori, and Papalexandris, 2005; Stahl, Miska, Lee, and De Luque, 2017; Stavrou, Brewster, and Charalambous, 2010), in most cases it has covered companies originating from developed countries (usually the West) whose foreign direct investment (FDI) was

[a] Wroclaw University of Economics and Business, ORCID: 0000-0003-2293-5926.

located in less developed countries (e.g. Brewster, Morley, and Bučiūnienė, 2010; Brunet-Thornton, 2017; Hyder and Abraha, 2008; Karoliny, Farkas, and Poor, 2009; Kshetri, 2010; Listwan, Pocztowski, and Stor, 2009; Morley, Heraty, and Michailova, 2009; Sahadev and Demirbag, 2010; Wilkinson and Wood, 2017). No specific research in this scope has been performed in MNCs headquartered in less developed countries, such as those in Central and Eastern Europe (Chen, 2016; Festing and Sahakiants, 2013; Götz, 2014; Koster and Wittek, 2016; Poór, Engle, and Brewster, 2017; Stor, 2016; Stor and Kupczyk, 2015; Trąpczyński, 2015), although the dynamic development of Polish international enterprises has been observed for years (Danik and Kowalik, 2015; Kowalik and Baranowska-Prokop, 2013).

Moreover, what has not been studied yet, is the relationship between the activities undertaken within the field of HRM, and particularly organizational leadership and talent management, performed by MNCs with regard to the position that human resources occupy among the competitive factors of these companies. Thus, it is justified to conclude that what is encountered here is a so-called research gap. The presented study, therefore, represents an original effort in examining the relationships between human capital treated as competitive factor and leadership and talent management practices in different context. The first chapter is structured as follows – short introduction, the main theoretical assumptions adopted in the research and the theoretical background of the study, the general framework of the research project and the empirical research methodics, the empirical research findings and summary and final conclusion.

The discussion presented in this chapter is a continuation of various aspects of organizational leadership analysis, which is a complex issue dependent on many factors (Heath and McCann, 2021), the third one tackling formal issues – the purposeful and rational impact of the organization on shaping leadership relationships and talent management practices. This chapter, in accordance with the character of the book, focuses specifically on the coexistence of formal solutions in the field of talent management and the development of leadership qualities and skills in the context of important aspects of business competitiveness. In order to clarify the existing relationships, the importance of individual components of formal actions in the field of leadership, talent management and competitiveness factors of Polish organizations with foreign units were demonstrated. The study used the CATI and CAWI methods. Descriptive and correlation analysis showed that there are statistically significant relationships between variables in relation to the average rating of all company units and the evaluation of the largest foreign entity.

1.2. The main theoretical assumptions adopted in the research and the theoretical background of the study

The theoretical developments as well as empirical assumptions are based on three major theories: for FDI the author refers to the company-specific advantages, within company management to resources-based views, within leadership and talent management to a situational approach.

Furthermore, organizational leadership and talent management – the main objects of interest in this chapter – are perceived as two of the HRM subfunctions. Strategic international human resources management (SIHRM), as the most advanced stage of HRM, is defined as those decisions and actions which refer to employees, give direction for personnel operations in the long term, and are oriented towards the realization of both:

1) MNC's global and local objectives,
2) its socially diverse needs of employees (building satisfaction), and are of substantial long-term significance to the organization success in its global scale.

The main objective of such SIHRM is threefold:

- to provide the directions and means of utilizing human resources in pursuing the achievement of the company's goals,
- to make this company gain its competitive edge,
- to enable the organization to succeed through its satisfied, well-selected and properly qualified employees (Stor, 2014, p. 22).

The first term that requires further clarification is organizational leadership. An important role in shaping the contemporary definition of leadership was played by the situational approach, which emphasizes the multidirectional relationship between the individual characteristics of the leaders and the factors existing in their environment. An important basis for the modern understanding of situational leadership are the studies by Tannenbaum and Schmidt (1958). This approach is particularly valuable not only in the identification of leadership competences, but also in the analysis and diagnosis of organizational conditions shaping leaders in the enterprise (Bryman, Collinson, Grint, Jackson, and Uhl-Bien, 2011; Freye, 2015; Tourish, 2013).

As a result of theoretical research and the analysis of the results of empirical research, the definition of organizational leadership was created. An organizational leadership is define here as the relationship between a superior (e.g. manager) and his/her subordinates (or co-workers, depending on the particular type of organizational leadership), aimed at achieving intended goals as well as visions, dreams, plans and values, and based on respect and trust of leaders competencies, and often exhibiting a fascination for that leader, and a rational or irrational commitment to the co-created vision of development (Haromszeki, 2010, p. 40).

According to HRM literature, HRM can be composed of different subfunctions (activities), depending on what differentiating criteria are assumed. These subfunctions as well as employees can create added value, but while some authors emphasize that what really matters to a company's success is a specific number, configuration and uniqueness of HRM subfunctions in a single company, for others it is not uncommon to assume "the more the better" (Kaufman, 2015). However, what is important in this context and from the perspective of the chapter is that the development of leadership traits and relationships are considered to be one of the separate HRM subfunctions of great significance and organizational leaders themselves can be part of a human competitive factor (Ingham, 2015; Latusek-Jurczak, 2014, pp. 56--66; Kearns, 2010; Mayo, 2012; Thomas, Smith, and Diez, 2013). This is mostly because an important role in shaping the contemporary perspective on leadership has been played by the situational approach, which underlines the multidirectional relationship between the individual characteristics of the leader and the factors existing in their organizational environment. Of particular value are the studies by Tannenbaum and Schmidt (1958), who divided the three important forces which exist in a situation – characteristics of the leader, his or her subordinate/co-workers and other external conditions, including organizational factors. Many researchers found that there is a strong positive correlation between leadership effectiveness and a company's performance, including productivity (Kahn and Katz, 1952; Schein, 1992), improvement in financial performance (Maister, 1997), shareholder returns (Bennett and Bell, 2004), organizational creativity and inventiveness (Mathisen, 2012; Mumford and Licuanan, 2004; Reiter-Palmon and Illies, 2004), strategic organizational change (Appelbaum, St-Pierre, and Glavas, 1998), decision-making (Vroom and Jago, 1974), multiple aggregated results (Yildiz, Basturk, and Boz, 2014), job satisfaction (Hamdia and Phadett, 2011; Riaz and Haider, 2010), trust, commitment and team efficacy (Arnold, Barling, and Kelloway, 2001; Avolio, Zhu, Koh, and Bhatia, 2004; Chew and Chan, 2008), attitude to work, motivation and work results (Masi and Cooke, 2000; Haromszeki, 2015), product development (Strukan, Nikolić, and Sefić, 2017), quality improvement (Laohavichien, Fredendall, and Cantrell, 2009) and many others. Probably no less attention to leadership and its development in conjunction with organizational performance has been paid in theoretical considerations and empirical research on MNCs.

Indicating some selected examples, there are research findings in which the authors identified a positive relationship between: the development of global leaders and their roles as a source of competitive advantage for organizations (Black, Morrison, and Gregersen, 1999; Csoka and Hackett, 1998), an organization's bottom line financial success and its ability to successfully develop leadership competencies (Adler and Bartholomew, 1992; Stroh and Caliguri, 1998), leadership practices and competitive advantage of foreign subsidiaries (Kuzel, 2013, pp. 138-140), leadership, managerial competencies development and company's development in foreign markets (Duda, 2017, pp. 347-358). It needs to be highlighted that the increasing global shortage of leadership talent is now recognized as a key source of risk to successful business strategy execution, business continuity and growth (Thomas et al., 2013, p. 54). This is why more and more MNCs may be interested in the development of leadership traits and relationships in their local subsidiaries worldwide. The studies confirm that there are formal programs responsible for selection and development of leadership, existing at different levels of management in various organizations globally (Amagoh, 2009), which are treated as a strategic approach to HRM (Leskiw and Singh, 2007) and are in fact the type of succession of the managerial positions (Groves, 2007). The analysis of 83 programs of leadership development (Collins and Holton, 2004), prove that this type of intervention is an important factor in shaping leadership relationships.

Consequently, development of organizational leadership (including leadership traits and relationships) may cover such activities as:

- identification of leadership talents (criteria of making decision, e.g. traits, skills, attitudes, behavior);
- leadership developmental programs as an element of a managerial career path;
- leadership developmental programs for team and project leaders;
- succession programs in managerial positions;
- support solutions for so-called natural leaders – those who are recognized as such by their co-workers;
- funding or co-financing postgraduate leadership studies or MBA programs;
- implementation of proactive organizational culture which promotes engagement, cooperation and effectiveness;
- monitoring and periodic evaluation of employees opinions and expectations towards managers and team/project leaders;
- regular external stakeholders surveys of their opinions of managers and team/project leaders.

The second concept that is particularly important in the considerations of this study is talent management. Talent management is the process intending to attract, retain, motivate and develop talented employees in accordance with the needs of the organization (Armstrong, 2007, p. 354).

Talent management, similarly to organizational leadership, can be treated as a separate HRM subfunction, and a competitive factor of an organization. In fact, talent management practices follow mostly the same principles, such as the formal shaping of organizational leadership within modern companies (as discussed above). Additionally, critical analysis of literature provides information of the most important aspects of talent management existing in different companies around the world (Kabwe and Tripathi, 2020; Shet, 2020). For example, depending on the type of organization there is a different level of importance of hard and soft talent management (Macfarlane, Duberley, Fewtrell, and Powell, 2012). Talent management in MNCs is one of the most important responsibilities of HR in relation to top management, which decides the success of an organization in the modern world (Minbaeva and Collings, 2013). Effective talent management depends on employees both engaged in the process managers and HR specialists and talented individuals who join TM programs (2016). Furthermore, successful TM processes consists in many practices, but the most important is talent identification (Meyers, Woerkom, and Dries, 2013). Other practices such as career management and succession planning depend on the character of the organization and human capital (knowledge and skills) presented by talented individuals (Bolander, Werr, and

Asplund, 2017). Nowadays talent management is recognized as a key management issue (Thunnissen, Boselie, and Fruytier, 2013), focused on the best people to fill key positions (Collings and Mellahi, 2009; O'Connor and Crowley-Henry, 2017). According to the latest studies, talent management has a direct impact on talented employees' outcomes and indirectly – the effectiveness of the whole organization because of Psychological Contract Fulfilment (Mensah, 2018).

Recent studies also contain a critical analysis of talent management practices because of their focus on individuals rather than the workforce. Critics highlight that TM is a policy contrary to CSR (Lacey and Groves, 2014). A lot of research confirms that talent management practices depend on IHRM strategy existing in an organization. Some subsidiaries just follow the formal solutions created in their headquarters, others build a version of TM characteristic for local cultural contexts (cf. Tarique and Schuler, 2018; Sheehan, 2012). The identification of talents should be a rational process based on the existing organizational conditions (Haromszeki, 2014), because some talented individuals may be a problem for companies (Coulson--Thomas, 2012). In line with other studies, TM practices have to be adapted to a changing environment, because talent management development has a significant relationship with achieving success within an organization (Panda and Sahoo, 2015). One of the most important challenges in the 21st century is talent retention, because of the employee labor market that exists in many sectors and regions. Due to the specific expectations of talented employees, a very important dimension of TM is the development of a solid organizational culture based on strong values (Ott, Tolentino, and Michailova, 2018). TM, especially talent identification conducted in the wrong way, may have a negative impact on the engagement, team spirit and effectiveness of the employees who are not involved in the process of development and career planning (Cole, 2016). The latest findings show that talent pools can provide a platform for the development of a strong internal talent pipeline if an appropriate TM framework is in place (Jooss, Burbach, and Ruël, 2019). Other new findings highlight that in specific conditions both internal and external models of TM can be useful (Maqueira, Bruque, and Uhrin, 2019) and that HRM investment results in a decreasing amount of negative results of TM (Son, Bae, and Ok, 2018). Sometimes the best option for TM is talent segmentation (Uren, 2011) and narrowing the talent focus (Woollard, 2010). In modern HRM one observe the increasing role of the treatment of the workforce, including talents as investments (ROI), especially in organizations with implemented human capital strategies (Yapp, 2009).

Consequently talent management may cover such activities as:

- talent identification – selection criteria for the program;
- measurement of employee creativity (number of ideas and improvements reported and their quality);
- systemic talent management within the development paths – managerial, specialist;
- creating trans-organizational cooperation between talented employees;

- creating R & D facilities for talented employees;
- building a platform for the exchange of experience, sharing knowledge, learning about the organization using ICT tools.

For the purpose of this study, it is recognized that competitiveness increases the company's potential. There are competitive factors thanks to which companies gain an advantage over other enterprises that did not achieve such a level of development. For the purpose of this chapter, it was assumed that the competitive factors of an enterprise are:

- quality of products/services;
- innovation of products/services;
- manufacturing technology;
- low production costs;
- human capital (knowledge and skills of employees);
- competences of managerial staff;
- financial resources;
- organizational structure/size of the organization.

Two factors from the list above – human capital and competences of the managerial staff – are treated as the most important competitive factors in human resources.

1.3. The empirical research methodics

The research findings presented in this chapter are part of a bigger and more complex research project financed by the National Science Center[1]. The approach presented in the project is the result of observations carried out over the last two decades of the increasing worldwide development in theoretical and empirical research devoted to human resources management (HRM) in international companies. As a result there are more and more scientific papers in which the main object of interest covers international human resources management (IHRM) (cf. Briscoe, Schuler, and Claus, 2008; Brewster, Sparrow, Vernon, and Houldsworth, 2011; Harzing and Van Ruysseveldt, 2010; Pocztowski 2002, 2015; Schroeder, 2010; Tarique et al., 2016), or strategic international human resources management (SIHRM) (Brewster et al., 2011). The latter even being considered not only as a consecutive stage of personnel function evolutionary development, but as a certain kind of scientific subdiscipline of HRM (Stor, 2011). In this context some other theoretical and empirical research developments consider human resources as a company's competitive factor (cf. Becker et al., 2001, Becker, Huselid, and Beatty, 2009; Campbell, Coff, and Kryscynski, 2012; Dyer, 1993; Huselid and Barnes, 2003; Huselid and Becker, 2011). The main object of interest in these projects is usually a measurable input that is

[1] Project No 2016/23/B/HS4/00686, entitled *Human resources as a strategic competitive factor of companies realizing foreign direct investment*.

made by HRM to a company (Boudreau and Cascio, 2013) as well as correlations between various external and internal HRM configurations that determine the value added. However, the research in this scope has been typically conducted in companies derived from developed countries whose FDI was located in less developed countries. Moreover, what has not yet been studied is the relationship between activities undertaken within the field of human resources management and the structure of FDI performed by international companies regarding the position that human resources occupy among the competitive factors of these companies. Thus, it is justified to conclude that there is a research gap in this field and this project is of an innovative character.

The main scientific goal of the research project is to identify, analyze and diagnose the relations between activities undertaken within the field of HRM and the structure of foreign direct investments (FDI) performed by international companies with regard to the position that human resources occupy among the competitive factors of these companies. The activities within HRM mentioned above cover such subfunctions as employee resourcing and retention, shaping their work engagement and satisfaction, performance appraisal, career development, talent management, competency management, development of leadership traits and relationships and employer branding.

The particular object of interest makes strategic international human resources management (SIHRM) contemporarily the most developed stage of personnel function evolution in MNCs (Stor, 2011). As regards the subjective scope of SIHRM, the focus is on two groups of stakeholders: the employed workforce and managerial staff.

The main research problem for the study presented in this chapter is formulated in the following way: ***In what ways do the evaluations of human resources as a competitive factor of MNCs affect the activities in the areas of organizational leadership and talent management?*** This leads to the more precise research question: ***Are there any identifiable patterns of organizational leadership and talent management practices when they are juxtaposed with the perceptions of human resources value as a competitive factor of a company?***

Hence, it was assumed that the level of organizational leadership and talent management advancement in companies engaged in FDI as a dependent variable would be determined on the basis of such independent variables as the value and position of human resources among a company's competitive factors.

The 200 organizations surveyed were non-financial economic entities established in Poland. They possessed at least one overseas subsidiary resulting from foreign direct investment (FDI) but the vast majority of their capital came from Poland. They are referred to as Polish multinational enterprises or companies, and they produced predominantly market goods or services of a non-financial character. The survey was conducted in 2018 and two research methods were used: CATI and CAWI. To analyze the collected data the author used both descriptive and correlational statistical methods, enabling to describe the research sample, and then to make conclusions about the whole population and the phenomena under research.

1.4. The empirical research findings

The conducted research shows that the most important areas in the formal shaping of traits and leadership relationships according to the average assessment of all enterprise units are *identifying leadership talents* and *leadership development programs within managerial paths and for team/project team leaders* (Figure 1.1).

Figure 1.1. The most important developments of leadership areas (including traits and relationships) – the average rating of all company units

Source: own research data.

The conducted research has also shown that the most important practice in the subfunction of the formal shaping of traits and leadership relationships according to the assessment of the largest foreign entity is also *identifying leadership talents.* In second place in the priority order of different leadership practices are – *Regular external stakeholders surveys about their opinions of managers and team/ project leaders* (Figure 1.2).

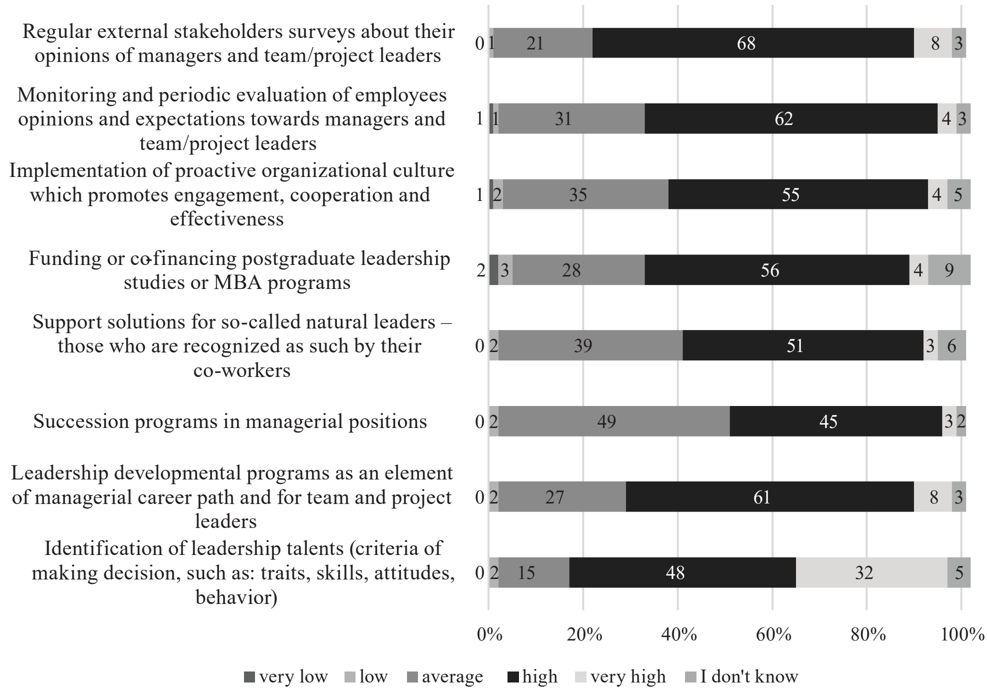

Figure 1.2. Most important development of leadership areas (including traits and relationships) – the largest foreign entity

Source: own research data.

The research has shown that the most important aspect of talent management according to the average assessment of all enterprise units is *talent identification – selection criteria for the program* (Figure 1.3).

The conducted research has also shown that the most important practice in the subfunction of talent management according to the assessment of the largest foreign entity is *talent identification – selection criteria for the program*. Besides the similarities, there are also differences between the biggest foreign entity and average statement in the whole company, because of the level of development of other TM practices (Figure 1.4).

The core part of the research was based on comparing a given competitive factor to the main competitors in the domestic market. As a result of the research, it was established that the most important competitive factor in the surveyed enterprises is the quality of products and services. The second and third place in the hierarchy of factors were *human capital* and *competences of the managerial staff* (Figure 1.5).

The evaluation of the selected foreign entity in comparison to the company's headquarters also showed that the quality of products and services in this unit is definitely higher than at the company's headquarters. The same relation is in

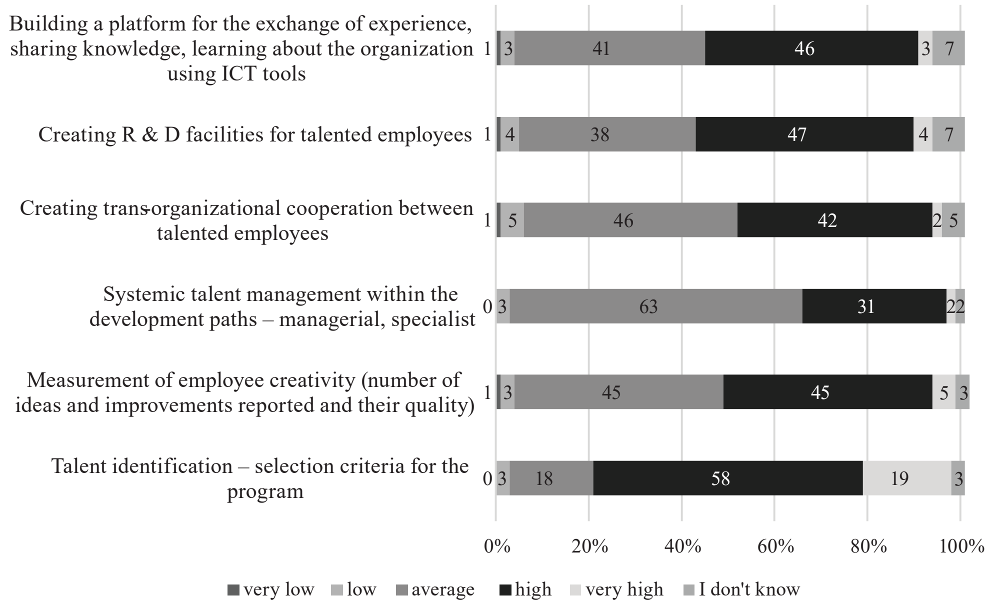

Figure 1.3. Most important talent management areas – the average rating of all company units

Source: own research data.

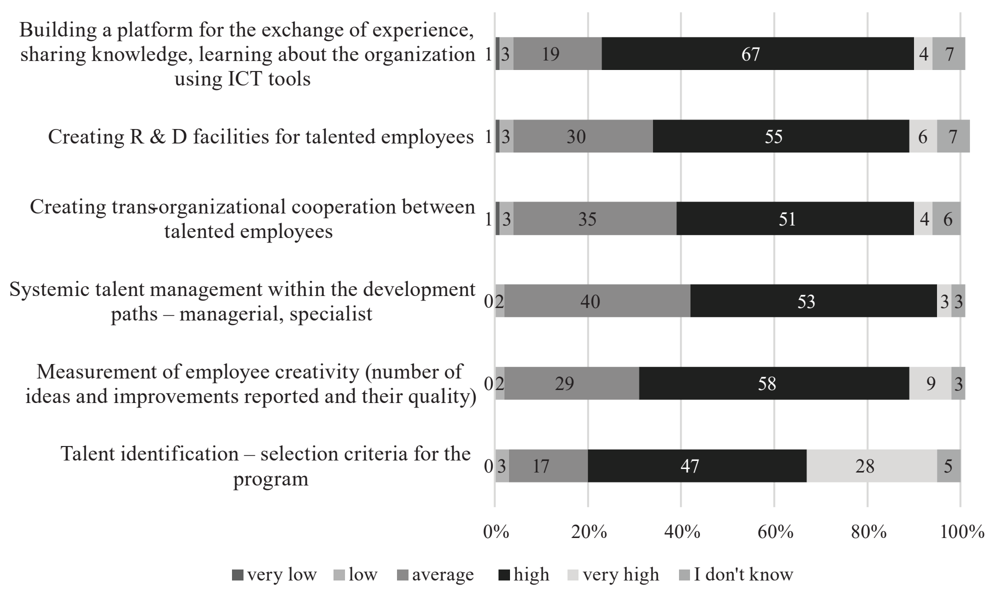

Figure 1.4. Most important talent management areas – the largest foreign entity

Source: own research data.

Figure 1.5. Key competitive factors. Polish-headquartered MNCs in relation to their main competitors on the market

Source: own research data.

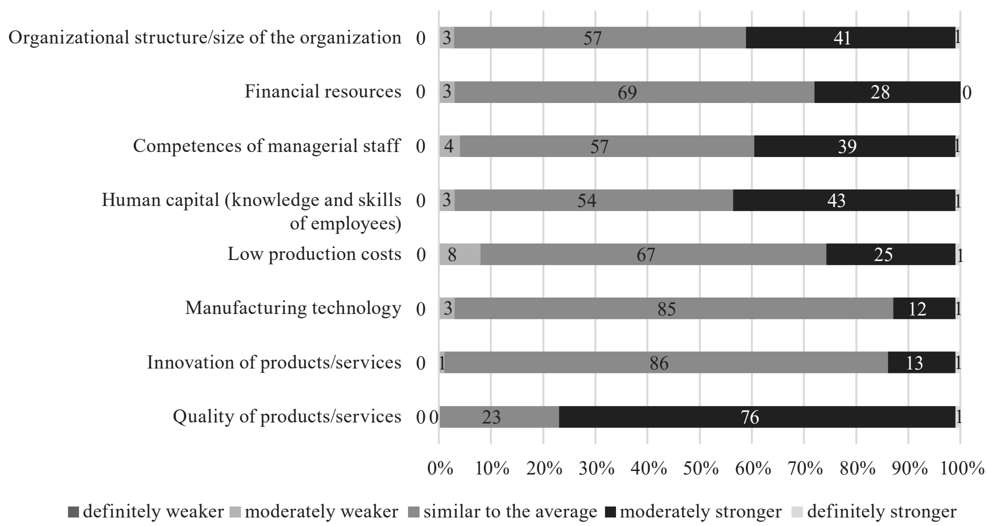

Figure 1.6. Key competitive factors. The largest foreign entity in relation to headquarters in Poland

Source: own research data.

accordance with human resources competitive factors – human capital and competences of the managerial staff (Figure 1.6).

In order to show the relations between competitive factors and HRM areas, including in particular shaping leadership traits and relationships, as well as talent management in the enterprise, a correlation analysis was conducted, the results of which are presented in Table 1.1 and Table 1.2.

As a result of the analysis of responses regarding all company units, it was noted that Pearson's correlation coefficient is statistically significant for the areas of talent management and leadership only in the case of the managerial competences (Table 1.1).

The analysis of the responses from the biggest foreign entity revealed the statistically significant correlation between the development of leadership traits and relationships and human capital (knowledge and skills of employees) (Table 1.2).

Table 1.1. Competitive factors and HRM subfunction correlation – all company units

		IMPORTANCE OF HRM SUBFUNCTIONS								
		Employee resourcing	**Employee retention**	**Shaping work engagement and satisfaction**	**Performance appraisal**	**Career development**	**Talent management**	**Competency management**	**Development of leadership traits and relationships**	**Employer branding**
COMPETITIVNESS' FACTORS (SCALE 1-5)	**Quality of products/services**	**0.324**	**−0.162**	**−0.246**	0.032	0.020	−0.071	−0.186	−0.085	**−0.273**
	Innovation of products/ services	−0.064	**0.490**	**0.433**	0.085	0.036	0.01	0.200	0.044	**0.298**
	Manufacturing technology	−0.136	**0.344**	**0.395**	0.035	0.094	0.113	0.148	0.073	**0.286**
	Low production costs,	0.033	0.02	0.038	0.118	**0.188**	0.022	−0.073	−0.001	0.11
	Human capital (knowledge and skills of employees)	−0.059	**0.165**	**0.245**	0.220	0.138	0.118	0.075	0.047	**0.288**
	Competences of managerial staff	−0.06	**0.287**	**0.337**	0.119	**0.192**	**0.207**	**0.214**	**0.173**	**0.366**
	Financial resources	0.082	−0.026	0.05	0.008	0.125	0.083	0.018	0.049	0.093
	Organizational structure/size of the organization	−0.018	0.049	**0.146**	0.128	0.242	0.068	0.03	0.129	**0.248**

Source: own research data.

Table 1.2. Competitive factors and HRM subfunction correlation – the biggest foreign entity

		IMPORTANCE OF HRM SUBFUNCTIONS								
		Employee resourcing	Employee retention	Shaping work engage-ment and satisfaction	Performance appraisal	Career development	Talent management	Competency management	Development of leadership traits and relationships	Employer branding
COMPETITIVNESS' FACTORS (SCALE 1-5)	Quality of pro-ducts/services	**0.179**	**−0.271**	**−0.192**	0.091	0.126	−0.029	−0.076	−0.036	**−0.213**
	Innovation of products/ services	0.036	**0.342**	**0.274**	0.041	0.072	−0.106	0.136	−0.007	**0.238**
	Manufacturing technology	−0.122	**0.330**	**0.262**	0.042	**0.175**	0.059	0.127	0.032	**0.271**
	Low production costs	**0.199**	0.116	**0.160**	**0.147**	**0.166**	0.047	**0.215**	0.085	0.131
	Human capital (knowledge and skills of employees)	0.096	0.053	0.071	**0.196**	**0.268**	0.019	**0.229**	**0.189**	**0.214**
	Competences of managerial staff	0.077	0.044	0.106	**0.196**	0.169	0.060	0.116	0.060	**0.157**
	Financial resources	**0.194**	**−0.177**	−0.062	0.111	0.124	−0.060	0.017	−0.040	−0.086
	Organizational structure/size of the organi-zation	0.110	**−0.197**	−0.070	**0.155***	0.116	0.004	0.094	0.130	0.044

Source: own research data.

1.5. Research summary

The main research problem for the study presented in this chapter was formulated in the form of a question: ***In what ways do the evaluations of human resources as a competitive factor of MNCs affect the activities in the areas of talent management and organizational leadership development practices?*** The conducted empirical research provided some research data and after their analysis the author believes they can answer this question.

Polish-headquartered MNCs appreciate their human resources. They see them as a company's competitive factor of a somewhat higher value than that ascribed to human resources in their main competitors. More advanced practices in areas of talent management and organizational leadership development exist in the analyzed biggest foreign entities than in all units (average rating) of MNCs research in the sample.

The conducted research shows that the most important areas in the development of organizational leadership according to both the average assessment of all enterprise entities and the largest foreign entity, are ***identification of leadership talents and leadership developmental programs as an element of managerial career path and for team and project leaders***.

The identification of talents is the most developed practice also in the subfunction of talent management, both the average assessment of all enterprise entities and the largest foreign subsidiary. In the biggest foreign entity, this means welldeveloped ***building a platform for the exchange of experience, sharing knowledge, learning about the organization using ICT tools***.

What is most important in the conducted research is a statistically significant dependence – ***the higher the level of development of leadership traits and relations in the largest foreign entity, the higher the human capital***. There is also a statistically significant correlation between ***talent management practices and development of leadership traits and relations and the competences of the managerial staff in the entire company***.

The main goal of the chapter has been reached. Furthermore, addressing the research problem posed in this chapter, it can be concluded that the analysis of the collected research data has successfully resulted in the identification of some patterns of organizational leadership and talent management practices when they are juxtaposed with the perceptions of human resources value as a competitive factor of a company. Additionally, the consistency of the solutions in the surveyed enterprises confirms the results in the area of developing traits and leadership relationships and talent management, in which the impact of formal leadership and talent management programs on the increase of managerial and human resources competences in the enterprise is noted.

1.6. Final conclusions

The research results confirm the impact of human resources treated as a strategic competitive factor on the advancement level of talent management and organizational leadership practices (as two of the HRM subfunctions) in multinational companies. However, expanding the formulated conclusions onto the whole population of MNCs worldwide would not be valid because of the research sample which, albeit deliberately, covered only those MNCs that were headquartered in Poland. Some other research limitations resulted from the sample structure – although the sample was diverse in terms of the type of business activity performed by the organizations, not all sectors of the economy were represented.

Despite all these deficiencies, the value of this chapter is clear. The submitted research project is of an innovative character as it tends to identify some general scientific laws which govern the organizational reality within the problem under research.

Moreover, the research findings may bring some considerable contribution to the development of management scientific discipline, in particular to human resources management. The original approach of the study caused the formulated conclusions to be of a theory-generative character. It is also worth remembering that the research was conducted in Polish companies engaged in foreign direct investment. To the best of the author's knowledge, among the predominant number of articles devoted to MNCs headquartered in the Western and more developed countries, it is probably the first study to take the Central European perspective on FDI destinations both in more and less economically developed countries. In this sense, these research findings have filled a gap in the research identified by the author in management literature.

As for the practical significance of the research results, it mostly relies on an attempt to identify some similarities and differences between foreign subsidiaries of MNCs headquartered in Poland that may have an impact on managerial interpretation on what talent management and organizational leadership practices should be considered as effective and which are possibly ineffective because of local managers' and employees' perceptions and expectations in the context of MNC's performance. The results of the studies are useful not only for academics, but also practitioners – both entrepreneurs and managers involved in the process of identification of talented employees – especially future organizational leaders working at different company levels and functions. The most important practical implication is that implementing human capital strategies, TM and leadership practices based on a situational approach is one of the most significant competitive factors of successful companies existing in the employee labor market.

Chapter 2

TALENT MANAGEMENT IN INTERNATIONAL ENTERPRISES – RESEARCH FINDINGS

Magdalena M. Stuss[a], **Izabela Stańczyk**[b]

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2.1. Introduction

Interest in the problematic issue of talent management in the scientific environment worldwide is showing an upward trend, as evidenced by the multiplicity of definitions of the term 'talent' (Table 2.1). Despite this, there is a lack of unequivocal research demonstrating that enterprises conduct the processes of TM[1] in their business practices in a manner that is directed towards the achievement of business goals.

Table 2.1. Key aspects of definition of talent

Author	Key aspects of definition
H. Emmerson (Emmerson, 1927)	talent = authority approach widely referring to only innate features
K. Adamiecki (Adamiecki, 1932)	talent = gift the term talent mainly ascribed to managerial positions significant role of talent in science
McKinsey & Company (Chambers, Foulon, Handfield-Jones, Hankin, and Michaels, 1998)	talent = abilities thanks to talent, it is possible to evaluate employees
M. Williams (Williams, 2000)	talent = expert talent is exceptional abilities and accomplishments
E. Michaels (Michaels, Handfield-Jones, and Axelrod, 2001)	talent = abilities
K. Catlin, J. Matthews (Catlin and Matthews, 2002)	talent = competencies + skills + experience

[a] Jagiellonian University, ORCID: 0000-0001-9911-649X.
[b] Jagiellonian University, ORCID: 0000-0002-1496-130X.

[1] Talent Management (TM) – both forms have been entered into the Polish business language in a fairly widespread manner.

L. Berger, D. Berger (Berger and Berger, 2003)	talent = above average accomplishments and results emphasized role of talent in an organization
T. Listwan (Listwan, 2005)	talent = ambition to achieve goals
A. Miś, A. Pocztowski (Miś and Pocztowski, 2008)	talent = added value for the organization talent = measurable competencies + immeasurable competencies
D. Ulrich (Ulrich, 2008)	talent = competency + engagement + work input
Y. Downs, S. Swailes (Downs and Swailes, 2013)	talent = natural predisposition talent is developed via abilities and skills
E. Gallardo-Gallardo, S. Nijs, N. Dries, P. Gallog (Gallardo-Gallardo, Nijs, Dries, and Gallo, 2015)	talent = natural abilities their constant development is significant
D. Gaur (Gaur and Gaur, 2020)	talent = employee of above average competencies

Source: own study based on (Stuss, 2021).

Such varied perceptions of talent also cause various approaches on the part of HR specialists in terms of proposing process solutions in organizations with regard to the acquisition, development or retention of people with unique competencies.

The aim of the chapter is the presentation of the empirical research results focused on talent management in international enterprises.

2.2. Empirical research methodics

Implementing theories of deduction, attempts were made within the framework of a systematic literature review to define the notion of talent (Stuss, 2021), thus key aspects of the definition of talent were acquired. Subsequently, based on the concepts of conducting scientific research (Bartunek, Rynes, and Ireland 2006; Das and Long, 2010; Sansone and Thoman, 2005), the phase of research proceedings was then conducted. The choice of the questionnaire method was made due to its distinctive features (Kraemer, 1991), employing also the basic principles of economic analysis: the simplicity of the model and validation outside of the test (Fabozzi, Focardi, and Ma, 2005). In constructing the research tools proposed by Kelley, Clark, Brown, Sitzia (Kelley, Clark, Brown, and Sitzia, 2003), the order of the activities was as follows: planning the content of the research tools; the layout of the questionnaire; additional open questions; pilot research; the stimuli to complete the questionnaire. The preparation of the questionnaire was based on the approach proposed by Creswell (2013), and also the approach applied bySchwarz, Tanur, and Tourangeau (Schwarz, Tanur, and Tourangeau, 1999).

The collected survey results were entered into the system and subjected to inductive analysis. The accuracy of the data was checked (checking for errors and cohesion of entries). The closed questions were easier in terms of analysis and encryption. By characterizing the research findings, descriptive characteristics were applied that encompassed a description of the common basic features of data in an orderly fashion. Subsequently, this was visualized in a graphic form with the aim of identifying trends and patterns, while also emphasizing the key areas of talent management (Peersman, 2014).

The aim of the research was to diagnose the implementation of talent management programs. The research was participated in by 11 enterprises that declared the application of talent management programs in practice. The questionnaire was completed by the managers of HR departments or key employees of personnel cells. The profile of the analyzed enterprises was varied, which facilitated a multidimensional analysis of the problematic issue of TM. The research findings presented are part of a greater research project. The results relating to the way of positioning TM programs were indicated, as well as the tools implemented within the framework of the review of talents conducted in the organization, and the development of TM activities was also illustrated. Large enterprises employing over 250 employees and subsidiaries of foreign entities constitute the prevalent group. This confirms the primary assumption that the programs of talent management are first and foremost implemented in international consortiums and corporations. Data analysis indicates that the entities where the TM programs are implemented and adjusted to their business strategies, are fully aware that the return on their investment in terms of human resources will translate into the financial performance of the enterprise. In this case, human resources are treated as capital and not as a cost.

2.3. Empirical research findings

The research commenced by positioning the TM programs in the processes of management of the entire operations of the enterprise (Table 2.2).

Table 2.2. Positioning of TM program

Criteria	Quantity	%
LEVEL OF TALENT MANAGEMENT		
Integrated and coordinated activities in the sphere of talent management	4	36
Comprehensive strategy of talent management	4	36
Talent management constitutes the basis of comprehensive activities in enterprise	0	–
Only chosen activities in the sphere of talent management	3	28
PROGRAM OF TALENT MANAGEMENT		
Only available to managerial staff	4	36
Available to all employees	7	64
Available to chosen employee groups in non-managerial positions	0	–

Source: own study.

These programs are built both as entire plans that are integrated within the framework of the personnel function, or as separate strategies of TM. Unfortunately no entity indicated that TM constitutes the basis of the entire operations of the enterprise, albeit the plan of TM should be designed with the aim of eliminating gaps in terms of talent and should also be integrated with the strategic and business plans (Stuss, 2021). The analyzed enterprises are conscious of the fact that in order to attain complete success, staff must consistently develop their skills. The TM programs are most effectively used in the context of business situations that are directly significant for the organization.

A structured approach to TM that combines the business strategy, the requirements with regard to the roles, recruitment, development of abilities and management of efficiency should be reflected in the TM program executed. This facilitates the successful attraction, identification and development of high quality talents and winning ‘the war for talents’. As in the case of the human resources management strategy, the TM program should constitute an integral part of the program of human resources in the organization, and must be in compliance with the vision, culture and general strategy of the company.

The thorough analysis of the TM programs was initiated from the identification of activities in the area of planning talents. The key to talent management is the perception of the appropriate criteria of the choice of talent and the appropriate definition of the future development potential of the employee. It is not possible to implement an effective program of talent management if it is unclear what type of work is executed by the employees, and what types should be engaged there. Thus, it is necessary to update the descriptions of positions, as well as formulate the models of competencies. The job descriptions must of course be adjusted to the unique needs of the organization. The same principle also relates to the model of competencies, which is influenced by the corporate culture. Almost two-thirds of the analyzed enterprises (64%) indicated that they possess the formalized set of key competencies, on the basis of which talent management is planned. However, a greater percentage of entities (82% of those analyzed), identify specific and useful skills that are necessary for the employees to execute the organizational goals in the particular work positions.

In the creation of the program/project of TM, it is vital to prepare the appropriate competency profile, and on this basis an evaluation should be carried regarding the level of competencies in the organization. As a result of such an evaluation, information is acquired as to the state of professional potential in the organization, while also simultaneously finding out about the competencies of the employees who decidedly exceed the expectations of the organization; it is possible to speak of the unique people that create the base of talents in the organization. Such a way of proceeding is the only one where the acquisition of talented employees stems from the internal resources of the organization. The other possibility is to search for such people on the external market by applying various methods. One key method is then becoming the exact definition in the organization as to who the organization actually acknowledges to be a talent. Unfortunately, only one enterprise defined the notion of talent as a starting point in building the formalized plan of TM: "The employee is strongly involved in the work and life of the entire company. The employee is creative, innovative, open to change and cooperation". Despite this fact, all organizations conduct audits of talents by using varied tools (Figure 2.1).

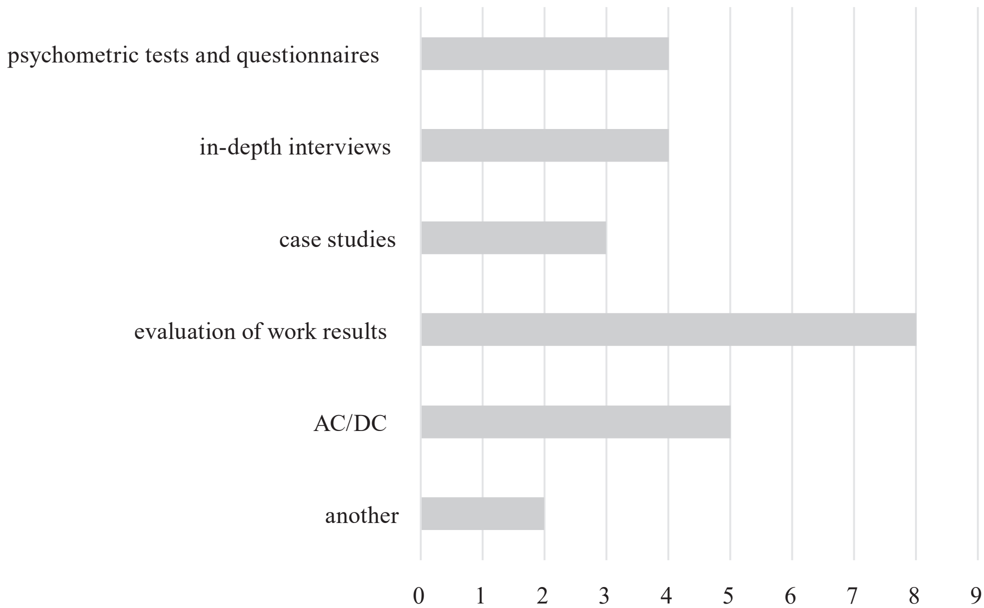

Figure 2.1. Tools within a framework of an audit of talents

Source: own study.

The vast majority of enterprises used the questionnaire applied in the HR department for the evaluation of the work of employees, accompanied by a detailed interview. Additionally, those analyzed used various tools in individual cases such as:

- evaluation of engagement,
- internal CV of the employee,
- psychometric tests,
- talent forum,
- interviews.

In planning talents, as previously indicated, the beginning of activities constitutes the definition of competencies that precedes the evaluation of talent in relation to the following competencies in four key areas of measurement:

- efficiency,

- behavior,
- potential,
- aspirations.

On this basis, enterprises analyze the talents in their possession and subsequently identify the lacking competencies in order to help fill the gaps in terms of performance and satisfy the future business needs. The project of talent management is not only the acquisition of the appropriate people from both within and outside the organization, but also the appropriate adjustment of the programs of professional development, as well as the systems of remuneration and motivation that would prevent the departure of staff with unique competencies.

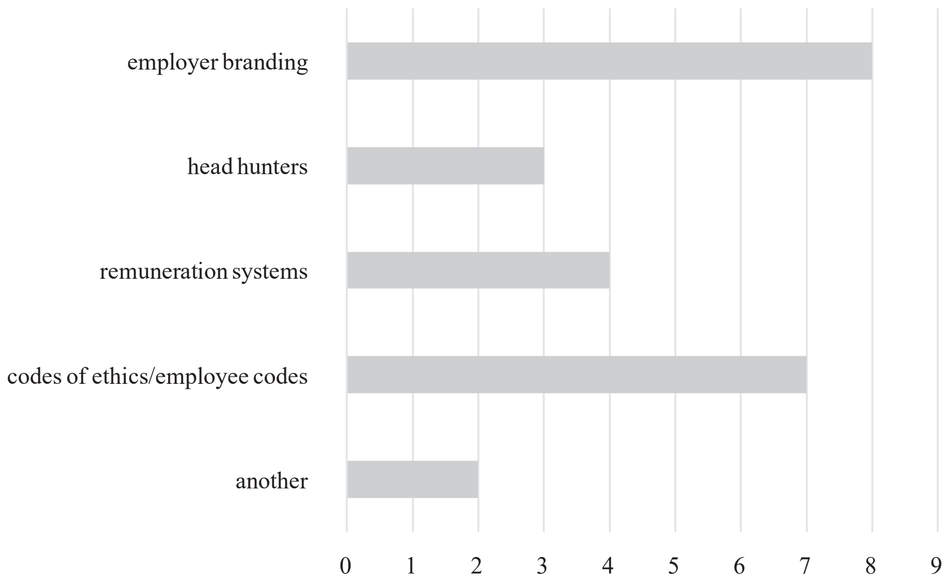

Figure 2.2. Tools in processes of attracting candidates

Source: own study.

A further aspect of the research was the diagnosis of the processes of acquiring talents, which requires the enterprises to promote their organizational culture and values in order to attract talented and qualified employees. The analyzed entities apply similar tools in this area (Figure 2.2), and with a similar level of intensity.

The most frequently applied tool is employer branding, namely, building the appropriate perception of the employer who provides the possibility of development and who has the appropriate motivational systems, etc. According to Matuszewska, activities centred around the image appear in the context of increasing the level of awareness of the stakeholders on the subject of positive aspects, and also the benefits accruing from the organization and generally speaking, the wider scope of activities conducted in the area of recruitment (Matuszewska, 2012). Likewise, the research indicates that candidates constantly search for job offers online and are interested in information about the possibilities of professional development, career paths created, and systems of remuneration that take non-financial benefits into account (Kuźniarka, Stańczyk, and Stuss, 2021). The values defined in the organizations and their mutual adjustment are becoming equally important for candidates. This is expressed in the form of, e.g. the code of ethics.

In the search for talent in their own enterprises, the analyzed entities first and foremost use the system of periodical evaluation (Figure 2.3).

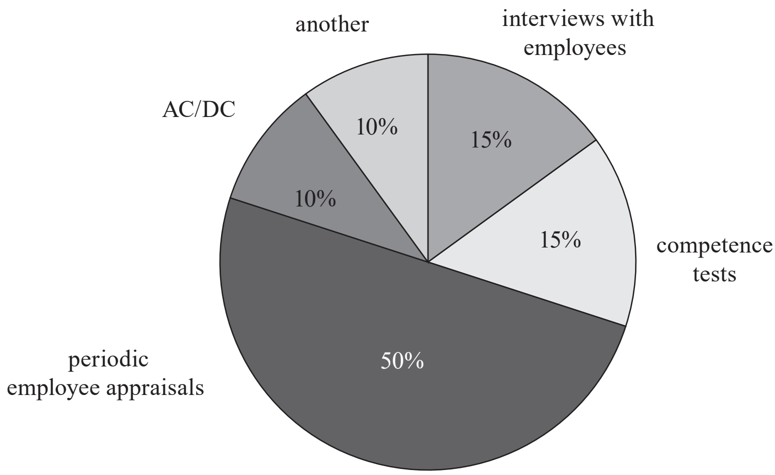

Figure 2.3. Identification of talents within the organization

Source: own study.

The periodical evaluation of the competencies of employees is most frequently a formal and systematic form of selecting people with unique skills and comparing them to the previously established norms. Such an evaluation serves the following aims of the TM programs:

- feedback – enables the employees to find out whether they are acknowledged to be talents,
- promotion – identifies the employees who deserve a promotion in the scope of conducting their duties,
- transfer – identifies the talents that require transferring to other tasks, for which they have a better predisposition,
- location of potential talents – identifies or discovers potential talents that require additional training with the aim of increasing their effectiveness in the future.

In the process of acquiring talents from within the organization, a significant role in the analyzed enterprises is played by the superiors of the employees. They take the decisions to delegate people to the program of talent management (64% of those analyzed indicated this). However, in each case the condition must be the expression of consent on the part of the employee for him/her to be acknowledged as a talent and participate in the TM program, thus dealing with the complete voluntariness of delegation to the program. Employees that are deemed to be talents will want to develop or feel the need for new challenges.

All the tools indicated by those analyzed give the potential to build long-term talent management. It is important to develop the set of talents on the basis of the employed workers, while also attracting talents from outside the organization. Enterprises frequently become excessively dependent on the former or the latter, while the establishment of equilibrium between them may be a challenge. Talents from the external environment may have a more objective view and even an insight into the competitors, whereas internal talents understand the functioning and organizational culture of the entity better. Therefore, those analyzed ambiguously indicated whether in the case of the TM programs functioning in their enterprises the potential talents from outside the company are already identified in the process of recruitment and selection of candidates for work by subjecting them to additional assessment to determine them as talents (55% yes, 45% no). Identical results were obtained in research in the case of the verification of whether the employment of talents from outside the enterprise takes place on the basis of negotiating the conditions of work by both sides (55% yes, 45% no). Nevertheless, it is necessary to remember that locating the talent in the inappropriate place may multiply the organizational challenges despite the qualifications and competencies (Schmidt, Mansson, and Dolles, 2013).

Table 2.3. Evaluation of positive development activities in TM

Criteria	Quantity	%
DEVELOPMENT OF TALENTS		
Enterprise has a solid plan for the development of employees by applying the most effective development actions adjusted to individual needs	6	55
Enterprise ensures support in the sphere of training and development of talented employees	9	90
Training program is useful for enhancing the value of talents and skills of employees and preparing them for future challenges	11	100
In the enterprise there is a coaching and/or mentoring program that encourages people to improve themselves, learn at work, while simultaneously to develop talent	7	64
In the organization there are procedures aimed at the development of talent	8	80
The list of people in the development plan of talent is regularly verified	6	55

Source: own study.

The majority of enterprises analyzed admitted that while attempting to implement the TM program from the outset, they started by employing workers that had the appropriate competencies by acknowledging them to be talents for specific positions. This was not always the appropriate way to commence the process of talent management. Nowadays, those analyzed indicate that the TM program must start with the strategic process of a comprehensive view of talent management.

Investment in the development of talents was justified as a source of competitive advantage (Stuss, 2021). Enterprises must invest in the development of employees in order to execute the strategic aims of the organization. In doing so, it is necessary to take account of the individual needs, learning styles and the current labor strategies. Programs of talent management try to develop and retain employees of high potential, while simultaneously ensuring organizations of a source of talents. In the diagnosed programs of TM in the majority of cases, the respondents emphasized the relevance of their plans for the development of talented employees (Table 2.3).

Thanks to the detailed preparation and execution of the programs of development within the framework of talent management, the analyzed enterprises ensure that their employees have the possibility and space to model their own talent in their activities with the aim of achieving an individual and organizational vision. Talent appears in efficiency, thus, apart from the general internal development of the abilities of an employee, the field of talent management is also focused on a better working environment and positive changes in management in order to provide the additional elements for the enhancement of talents.

The development of talent is a long-term integrated process that serves for the maintenance of the organization in sound condition, while also ensuring innovativeness (Ketter, 2010; Pruis, 2011; Stewart and Rigg, 2010). In current times of economic slowdown and the prevalent role of employees on the labor market, the development of talents is therefore an active strategy for enterprises in order to survive the looming deficit of specialists.

TM programs are aimed at providing a comprehensive approach to talents, both today and for the future. Thanks to ensuring the key human resources of the possibility of development, the companies have the possibility of retaining them in the enterprise (Lockwood, 2006). Hence, another area within the framework of the conducted research was the issue of the retention of talent.

A predominant group of those analyzed indicated that planning a career involves providing employees with the real possibility of promotion (91% of respondents), while also flexibility in terms of the working conditions – the options that are available to employees are wide-ranging and do not force the choice between staying in the organization or leaving it (81% of respondents).

Of the tools that constitute long-term incentives within the framework of the strategies prepared for retaining employees (Figure 2.4), motivators are most frequently applied.

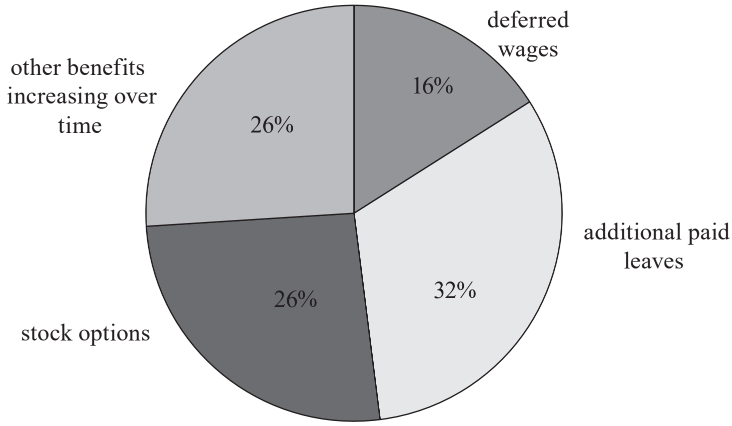

Figure 2.4. Motivators applied in retaining talents

Source: own study.

Unfortunately, in the case of monitoring the levels of job satisfaction in order to prevent problems before people/talents leave the organization, the distribution of results is almost half and half (55% yes, and 45% no). It is possible to conclude that there is an underdevelopment of the TM programs.

Retaining talents is an important issue, thus enterprises should build strategies to retain key employees that encompass the main practices of HR. In the analyzed TM programs, there is a prevalence of tangible motivators, whereas internal motivation and job satisfaction of the talents themselves are also significant (Saddozai, Hui, Akram, Khan, and Memon, 2017), as well as the planning of success at various levels of management (Tabatabaee, Lakeh, and Tadi, 2014).

The final stage in this section of the research strategy was the verification of whether the enterprises that have programs of talent management analyze the effectiveness of their application and in what way (Table 2.4). The obtained results are not unequivocal.

Table 2.4. Effectiveness of TM programs

Criteria	Quantity	%
EVALUATION OF VALUE OF TALENT		
Enterprise regularly assesses its progress in talent management	6	55
Enterprise compares the effects of talent management with its financial performance	4	44
Enterprises possesses specialized tools for the evaluation of the value of talent	2	20

Source: own study.

The evaluation of the programs of talent management is a current problem. Many managers and practitioners of HR deliberate how to assess these programs, which should be verified according to the indicators specified on the basis of the initial aims stipulated in the program, or the use of measurable indicators of human capital. Such data could be compared periodically.

2.4. Final conclusions

The programs of talent management offer the analyzed enterprises a tried and trusted, while also practical way to significantly enhance the level of job satisfaction and retain employees with the aim of reducing staff turnover and its associated costs. A good TM program encompasses training on the subject of the tasks and tools that are important for the role, but also involves the corporate culture and values, as well as information on the subject of the programs of talent management, the possibilities of making contacts, establishing preliminary goals, and the periodical evaluation of their effectiveness. Organizations frequently adopt a ready-made program with the aim of satisfying their urgent needs, however not much attention is placed on the long-term needs of talented employees. As indicated in the research, they are cohesive and repetitive, yet not always effective as they do not adjust to the changing needs of talents.

The analyzed TM programs were implemented with the aim of achieving the specific aims and concentrated on the narrow aspect of the needs of talents. However, it is necessary to note that they were coordinated and associated with other systems and aims of HR, or identified with them.

TM programs are based on business strategies and the strategies of talent management. They are also fully integrated with other systems and HR processes, while also managed as basic business practices. In the perspective of the analyzed enterprises, they should prepare and implement talent management into a fully integrated system, in order to ensure the full benefits of the possible synergic benefits for the organization as a whole.

Developing the strategic abilities of TM requires specifying the program of talent management, including first and foremost the evaluation of talent, which should be applied for the measurement of the effectiveness of the program.

Talent management must be an integral part of the business strategy in order to be effective. Talent management signifies an attempt to make use of the full potential of human capital of this intangible resource, with its intricacy and associations with human behavior.

Chapter 3

DEMAND FOR HUMILITY IN MANAGING ORGANIZATIONS UNDER CONDITIONS OF SUSTAINABLE DEVELOPMENT

Grażyna Osbert-Pociecha[a], **Natalia Bielińska**[b]

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3.1. Introduction

Organizations currently striving to realize their natural need for development, whether by improving existing or by searching for new concepts of business activity, face the need to respect the paradigm of sustainable development (Skowroński, 2006). The process of implementing the idea of sustainable development continues for years, although a slowdown was noted in the second decade of the 21st century (Wołczek, 2014). Various attempts are being made to disseminate this idea, including the introduction of appropriate legal regulations at global, national, and local levels, the formulation/renewal of properly targeted strategies, e.g. the sustainable development strategy in the European Union (Europejski Komitet Regionów, 2019), as well as verification and expansion activities in the framework of projects such as Sustainable Development Summits (formerly Earth Summits), climate conferences, etc. In general, however, in the face of the degradation that has already taken place and is still ongoing, these actions are still insufficient. In the short term, estimated by experts to be until 2050, what is left for the world in order to protect itself from a total catastrophe, more intensive, 'massive' actions are needed to achieve the goals of sustainable development and to move away from the traditional model of development, especially since the multidimensionality, the complex structure of the goals of sustainable development, and the need to integrate them are reinforced by already high requirements to be met at global level, at the level of individual economies and regions, as well as at microeconomic level, i.e. organizations/ companies – including the area of their management.

[a] Wroclaw University of Economics and Business, ORCID: 0000-0003-1951-0062.
[b] Practitioner in the field of HRM, ORCID: 0000-0002-6311-4342.

3.2. The essence of sustainable development

The idea of sustainable development (SD) appeared several decades ago (Trzepacz, 2012) as a concept integrating many aspects of human activity and its relations with the environment. The conceptualization of sustainable development is still subject to evolution, which results in a lack of clarity in its understanding, however it can be considered as an alternative type of socio-economic development, necessary in the face of the threat of catastrophe facing our planet in the case of continuing the current, i.e. conventional development method based on the exploitative use of its resources in the name of maximizing GDP and consumption.

The concept of SD is about actions resulting from a compromise between environmental, economic and social objectives ensuring that the needs of the modern generation are met, without limiting their ability to be addressed by future generations (Stanny and Czarnecki, 2011).

Over the past few decades, the world been dealing with development that promoted the intensification of economic activity (entrepreneurship). This was identified with the desire to maximize profits, leading to both significant civilizational changes and notable improvements in the quality of life. At the same time it increased pressure on the environment through the excessive exploitation of resources, leading, among others, to the loss of biodiversity, degradation of the natural environment and the related unpredictable cascading effects, e.g. those resulting from climate change (floods, droughts, fires), chemical pollution, etc.

This 'hyperactivity' of humankind also gave rise to a belief in the extraordinary causative power of humans, their 'world domination', and in the infinite technological possibilities. Yet, at the same time, one can see a lot of evidence that a human being as 'the ruler of the world' and technologies that are the product of human creativity, does not fully cope with and is not able to limit or eliminate such phenomena as poverty, economic crises, migration, cataclysms, epidemics (diseases), and the effects of environmental degradation including climate change.

This paradox became a prerequisite for reflection, and for seeking solutions that would allow human activity to operate at such a pace and in such a way as to simultaneously respect the order of the world in which we live, while respecting the laws of nature. Examples of such concepts are (Trzepacz, 2012) eco-development, sustainable development, stable development, self-sustaining or the recently disseminated concept of a "doughnut economy" by Raworth (2021), suggesting that the economy cannot develop indefinitely (under the dictate of GDP growth), because it leads to crossing "planetary boundaries" (climate change, soil acidification, soil reduction, growth of chemical pollution, "holes" in the ozone layer, etc.), i.e. external conditions of this development. Striving to meet social needs (including access to food, drinking water, energy, education, work, use of the healthcare system, etc.) and their even redistribution, while maintaining the balance between the basis of human well-being and the 'ecological ceiling of planetary pressure', i.e. staying in a safe/fair space for people (“doughnut rim”), the author of this concept proposes to use a wide range of goals/measures and implement development on the basis of the transition from *growth* to *thrive* with the intensification of the circular economy based on renewable energy, wider use of biomass, etc., as well as by ensuring the appropriate redistribution of capital, knowledge, etc.

To this disturbing situation in the world, one can add the COVID-19 pandemic which, as indicated, is currently evolving into a long-term crisis situation, namely a recession according to the L model (Zelek, 2020). This exposes the weaknesses of the prevalent model of development, and all the more encourages to rethinking/anticipating the pattern of further development. Regardless of all the negative effects of such a state of affairs, this moment can be treated as an alarm bell for a revolutionary reset (according to (Gorynia, 2021)), not only of the civilization’s solstice in the socio-economic system, but also in the entities/organizations structuring it. The solution to the pandemic crisis requires even more to respect the paradigm of sustainable development, including not only the redefinition of growth (moderated by the GDP and consumption index), but also the acceleration of activities related to the departure from being dependent on fossil fuels, as well as reduction of emissions, creation of green jobs, and the state’s involvement in activities ensuring food security, investment in social infrastructure, etc.

Therefore, focusing on the preparation of a broadly understood instrument for the implementation of solutions within the framework of sustainable development (legal regulations, criteria for the selection of objectives, assessment measures, procedures, etc.), the need to shape appropriate attitudes and behavior of people in organizations should also be taken into account. In the literature on change management, the determining role of attitudes confirming specific ideas/solutions is defined as conditions absolutely necessary to ensure the effectiveness of the changes made. It is worth pointing out here, by analogy, to the practices of using the influence of mood, the expectations of entrepreneurs, consumers, and analysts (as part of the so-called indicators that are ahead of the economic situation) on the development of the future economic situation.

The need to shape specific attitudes and behavior of people (managers, entrepreneurs) in the context of making, as it were, revolutionary changes to the development model, is associated with the fact that since the industrial revolution at least, the prevailing model was calling for entrepreneurship, with the cult of human interest, which remains in connection with a relatively high tendency to innovate, the consistent pursuit of achieving the set goals (in particular those related to capital multiplication, earning surplus/profit), gaining a competitive advantage, taking risky challenges/ventures, arbitrariness in decision-making, also with self-claiming, and preferences for selfishness, arrogance, etc. The use of the above attributes of entrepreneurship also entails unconditional trust in rationality on the basis of *Homo Oeconomicus*, limitation of altruism, loss of a sense of community in particular regarding the requirements of functioning in the natural environment), etc.

In this context, the aim of this study was to check to what extent humility, as a reflection of the attitudes of those who manage organizations, i.e. their owners, managers that are opposed to those previously preferred as part of the ambivalent approach, is today and may be in the future a favorable condition for making changes in organizations, in particular those necessary for the implementation of the concept sustainable development. By disaggregating the problem posed in this way, an attempt was made to answer the following questions: what is humility and what is its role/usefulness in the management of organizations, how humility is understood by practitioners and how it is ranked against the background of other managerial 'virtues'. Hence, is there a need for humility today or in the near future?

On the basis of self-assessment, an analysis of the relations between humility and personality traits was also made, as well as the valuation of the level of humility and its variability, together with the identification of determining factors, the position of the respondents in terms of the possibility of shaping/developing humility and negotiations regarding its use in the management of organizations in the future.

3.3. The essence and role of humility

The etymology of the word "humility" (Latin *humilitas*) derives from the word *humus*, which can be interpreted as being in contact with the earth, as "walking on the ground", an awareness of one's own 'earthiness', a kind of humbleness/respect for others (Juruś, 2015). In terms of the dictionary approach, humility is defined as acknowledging one's own limitations, not overstating oneself. In the past, understanding humility was closely related to a specific worldview (Frostenson, 2016). In Christian culture, for example, humility implied defining a (humble) place/role in the divine order. Being humble meant accepting one's imperfection in sinning and, at the same time, trusting in God, who remains the source of all good. In the Confucian philosophical and religious system, humility meant the broadly understood willingness/ability to learn regardless of formal rank or social status. In Buddhism, humility is one of its pillars, suggesting an adequate awareness/understanding of one's own cognitive ability towards others. It is not hard to see that humility is intertwined with moral issues; moral philosophers, adopting a more secular point of view, in fact emphasized humility as the recognition of dependence on others, "there is something greater than me" (Ou, Tusi, Kinicki, Waldman, Xiao, and Song, 2014). In the past, humility was treated quite commonly as a virtue, i.e. a person's constant predisposition to strive for improvement, but there was no lack of a critical approach to humility (e.g. Nietzsche) or even treating it as a flaw (cf. Hume). In the literature on the subject, humility is synonymous with modesty (Morris, Brothertidge, and Urbanski, 2005), although at the same time it is emphasized that modesty means insufficient display of one's positive qualities and contribution does not quite coincide with a balanced assessment, which is inherently associated with humility, i.e. a recognition of both one's strengths and limitations.

Humility is correlated with the concept of honesty, the H-H (*Honesty-Humility*) component has been added as a sixth dimension to the HEXACO personality model (Lee and Ashton, 2004), but it has been noted that this dimension does not fully reflect the essence of humility, as it does not include, among others, such key elements as the willingness to actually know oneself, and the ability to learn and appreciate others (Owens, Johnson, and Mitchel, l 2013).

Humility is also an important variable of leadership, as Gist (2020) puts it – it is *at the heart of leadership.* By rejecting the common interpretation of humility (as weakness, submission to others, lack of firmness), the emphasis is put on the possibility of listening to other people (subordinates), accepting criticism, and being ready to change. It is stressed that only truly great and mature people can be humble and, within the framework of the so-called "culture of caring", ensure a sense of community, commitment and collective responsibility while respecting the dignity of others, i.e. create a work environment in which it is relatively easier to achieve the set goals. In this way, humility, as an effective way of influencing people, comes to the fore in the face of the challenges of the future, especially in times of crisis.

In view of the growing demand for ethical management (after the financial crisis of 2008), humility has become an important aspect of leadership, enabling confidence-building and laying the foundations for collective action to ensure social cohesion (Argandona, 2015). Humility (internal) is an individual trait, but its use in business involves going beyond this personal/internal context, and this requires openness, learning from others (listening and accepting arguments), and often giving up one's own aspirations.

It is commonly felt that humility does not fit into the business context, which is stereotypically associated with fighting, using the attributes of power, generating impulses for continuous success, as well as self-righteousness and arrogance. In the opinion of Vera and Rodriguez-Lopez (2004), it is humility that gives leaders the opportunity to distinguish between such characteristics as justified self-confidence, conscious self-worth and impartial self-esteem, and excessive self-confidence (pride), narcissism (flattering one's ego), thinking in terms of self-interest, ignoring others. It is humility that shows the will to cooperate and not the desire to compete. Humility is a "silent virtue" that speaks loudly, mainly through actions recorded by others (Maldonado, Vera, and Sprangler, 2021). Lao Tzu states that *power over others proves strength and power over oneself is real power* (cf. Maciejewski, 2017), humility is a manifestation of power, self-control and thus becomes a 'key' for a manager to succeed at work, in arranging relationships with people, staying healthy, etc. (see also Hogan Assessments, 2018).

In emphasizing the driving force of humility, more and more often attention is given to its importance in managing teams and organizations; in the face of the fact that the risk of business decisions is increasing (operating in conditions of uncertainty, lack of a decision-maker's monopoly on knowledge and rational choice), humility with its immanent openness, appreciating the contribution of others, and correcting mistakes becomes an important condition for effective leadership (although the demand for it is still hardly visible in terms of promoting charisma, ambition, pride). Actions to develop humility as a competence (a particularly valuable resource in the organization) should also be considered as insufficient. It is a long process that requires people to engage in deep personal changes (including changes in consciousness). It is worth noting that humility (especially in the dimension of willingness to serve others) is a relatively scarce resource, difficult to imitate, although it is also possible to "feign" humility (Frostenson, 2016). Humility is particularly in the process of organizational learning and in acquiring/developing organizational resilience, which makes it possible to defend the thesis about the usefulness of humility in management and encourages wider use of this source of competitive advantage.

Research on the conceptualization of humility includes the influence of various personality traits on humble behavior (Nielson and Marrone, 2018) as well as coupling with other managerial "virtues" (Frostenson, 2016). However, the empirical findings to date do not allow for an unambiguous, complete definition of the construct of humility. On the one hand, humility is seen as a necessary component of the management style; in these terms it is enough to recall the research of Collins (2001), looking for conditions for the excellence of companies. The surprising result was the finding that managerial skills, i.e. the highest level of leadership on a five-point scale, constitute a specific mix of humility (modesty) with determination in action. The fulfillment of this condition has allowed companies to maintain a long-term competitive advantage, overcome crises and achieve relatively lasting success. On the other hand, as part of promoting entrepreneurship, innovation as conditions ensuring development, humility as a weakness, lack of ambition, passivity, etc. is a contraindication of attitudes and behavior necessary in business/management, able to ensure the implementation of the goals of individuals, teams and entire organizations.

An example of the ambivalent approach to understanding humility (in the organizational context) is the introduction by Argandona (2015) of the intra and interpersonal dimensions, which is associated with the perception that humility resides in an individual and is perceived by others.

When referring to psychological research on the structure of humility, i.e. the thoughts, feelings and behavior that constitute it, noting that in the extensive research since 2000, which has tried to determine to what extent humility is something positive and socially desirable and to what extent it is a negative phenomenon (i.e. it also has its dark side) (Tangey, 2000). The breakthrough was constituted by the empirical findings of (Wiedman, Cheng, and Tracy, 2018), namely the psychological structure of humility, which by means of the method of cluster analysis, among others, allowed to distinguish two dimensions of humility:

- pro-social – includes the affiliate feeling of gratitude to others,
- antisocial – oriented towards withdrawal, a feeling of humiliation and shame.

At present, the research on the conceptualization of this phenomenon carried out by Nielsen and Marrone (2018), can be considered a reliable source for establishing the 'core' of humility in relation to the organization. Synthesizing the previous research results (from 2000 onwards), a set of key (theoretical) elements of humility was constructed based on the criterion of the frequency of appearing in the literature on the subject.

The most important component of humility (it appeared in all the analyzed sources presenting the results of psychological and organizational research) is *full awareness/assessment of one's abilities/limitations and the ability to admit mistakes*. The next elements constituting humility were: *openness to feedback and the ability to learn, valuing others, recognizing their input/strengths, transcendence/taking a broad perspective in thinking/acting – there are things 'bigger' than us, there are things which we have no control over, low level of self-focus* (they were present with a frequency of 6 to 3). The remaining five elements (*striving for self-transcendence, i.e. going beyond one's 'I' and embracing all beings within 'the self', no need for inspection, identifying and taking advantage of favourable circumstances/opportunities, rational collective orientation, showing no superiority* were used once to define the conceptual framework of humility.

According to (Nielsen and Marrone, 2018), humility, in accordance with its ambivalent nature, can be both stable and flexible in time, i.e. it can be learned, and 'instilled' in an organization. Taking into account the accumulated research achievements, it is worth emphasizing that humility in the organization is generally perceived as a positive phenomenon, conducive to productivity, although certain moderating conditions are necessary for this to happen, e.g. organizational culture promoting cooperation and learning, proactive and efficient teams as well as the qualities of a leader for example, such as competence, honesty, etc.

On the one hand, humility is seen here as a trait 'based on oneself' related to the experience of individuals resulting from who they are, while on the other, it is linked to their relations with others, with the world (Ou et al., 2014).

The review of the subject literature confirms the long-standing interest in humility, which results in making further attempts to identify the essence of this phenomenon, to clarify its changing conceptualization over time, as well as to recognize its role and effects as well as the challenges related to humility, especially in relation to the organization, and to managers.

3.4. Objective and method of research

The research was carried out employing the diagnostic survey method, using a questionnaire provided to the respondents via a link[1] on a website (similarly as in CAWI). In order to avoid a significant disadvantage of the CAWI method (random,

[1] The survey was conducted in 2021 using https://researchonline.pl.

poorly selected respondents – the lack of or incomplete control on the part of the interviewer in this regard), and to ensure obtaining reliable empirical material at the stage of selecting the research sample/respondents, namely the stage of the so-called 'arrangement' (Sztabiński et al., 2005) characteristic of the interview technique, was used as part of the triangulation. 'Arrangement' is what researchers do to obtain respondents who meet the adopted criteria for selecting a sample in the next step of familiarizing them with the purpose and subject of the study (information phase), as well as encouraging/convincing them to participate in the study (persuasive phase). Arrangement, as a stage of the research process, despite the labor intensity, allows to eliminate random respondents who do not identify with the purpose of the survey (however, identifying with the goal does not necessarily mean lack of objectivity), thus giving the chance to obtain the appropriate quality of answers to the questions contained in the research questionnaire. This stage is particularly desirable in a situation where the subject/studied phenomenon is complex, and the participation of respondents does not just mean registering specific (visible to the naked eye, and documented) facts, but requires the launch of a creative thinking process enabling deepening the analysis of the studied phenomenon, making its balanced assessment using various perspectives and demonstrating the ability to anticipate.

In conclusion, a deliberate selection of the research sample was applied, inviting people from all over Poland who are the owners of companies or entrepreneurs, managers (CEOs and members of the management board of companies), managers of project teams, etc.) who, after reading the intention of the research, expressed their willingness to participate. The questionnaire contained a metric for the characteristics of the respondents (selected criteria), the organization/industry represented by them and questions exploring the phenomenon of *humility.*

A total of 472 respondents took part in the study; after verification, 338 questionnaires were qualified (N = 338). This sample does not meet the criterion of representativeness, and therefore, the results of the study do not provide grounds for generalizing conclusions. Nevertheless, the obtained data may contribute to shaping the perception of the phenomenon of humility in Polish organizations, and will, in the future, be used to formulate/verify detailed research hypotheses on humility.

3.5. The results of the survey research

Among those surveyed, 34% were people holding the position of the president or member of the management board of the organization, 48% were entrepreneurs/ company owners, and the remaining 18% were former directors, managers of departments, projects, etc. The most numerous group here were the respondents with 10 or fewer years of work experience (41%), followed by 36% (those with 11-20 years of work experience), and only 4% with more than 30 years of work experience. As for the criterion of the size of the organizations participating in the study (according to the number of employees), large organizations accounted for 16%, medium-sized for 30%, and the share of small ones was 54%. Regarding the scope of the companies' operations, the structure was as follows: global – 9%, international – 26%, national – 32%, and companies with a regional or local reach – 33%. The studied sample included a very wide spectrum of represented industries, including manufacturing, construction, agriculture, transport, logistics, trade, tangible and intangible services, health care and others.

In terms of the criterion of economic and financial condition, most companies were characterized by a very good and good condition (74%), although their condition deteriorated in 2021 compared to 2020; there was an increase in the share of entities in the group of average economic and financial condition.

When assessing the usefulness of humility in managing an organization, the respondents decided on the following distribution of the suggested roles (Table 3.1).

Table 3.1. The role of humility

Humility, among others	% of indications
1. Allows one to better adapt to the new reality, to dynamically changing operating conditions, to overcoming crises	21
2. Opens up the space to look for other goals, it triggers mutual tolerance for emerging differences, it enables the approximation of positions	18
3. Creates a work environment conducive to increasing productivity	17
4. Enables the integration of efforts to achieve the organization's goals	13
5. Increases participation, allows the involvement of a wide range of people to achieve goals/tasks	11
6. Opens the door to success	11
7. Allows one to limit control, develops a sense of community and responsibility	9

Source: own study based on the results of the survey.

Table 3.2. Consequences of the lack of humility in an organization

The lack of humility puts an organization at risk, for example	% of indications
1. The inability to correct mistakes, falling into self-righteousness, „development stagnation"	24
2. Causing difficulties in resolving conflicts (orientation on proving certain reasons)	17
3. Feeding one's ego, excessive self-presentation of the leader (management), preferring to think in terms of one's own benefits (not the organization's)	17
4. Taking impulsive, risky actions (result of arrogance)	16
5. The lack of interest in teamwork (and obtaining a synergistic effect), lack of orientation towards „relations" (relational capital)	15
6. Basing activities on the illusion of self-sufficiency, dealing with opposites	11

Source: own study based on the results of the survey.

Thus, the respondents appreciate the role of humility in adjusting to the current operating conditions of companies the most. They also notice its necessity in improving productivity, and accept it as a determinant of success.

At the same time, the risks were indicated for an organization that does not show humility, where it is not an important element of the management of this organization (see Table 3.2).

In the next step, an attempt was made to determine which dimensions/components of humility are particularly important for its understanding in Polish enterprises by Polish managers. On the basis of the reviewed subject literature, a list of 12 dimensions of humility was generated. Based on the number/% of responses, a ranking of these dimensions was determined, at the same time assigning them importance (on a scale from 6 to 1); see Table 3.3.

Table 3.3. Ranking of the dimensions of humility

Dimensions of humility	Number of indications	%	Severity					
			6	5	4	3	2	1
			% of indications					
1. The ability to correct mistakes, the ability to learn and make appropriate changes	315	93	33	29	14	10	4	3
2. Awareness of one's own (individual and collective) limitations, allowing the possibility of making a mistake, the ability to accept criticism	308	92	37	25	11	9	6	4
3. The ability to listen to others, to empathize, trust others, the presence of a „culture of care"	300	89	15	15	25	20	9	5
4. Recognizing the right of others to make a choice (making decisions), recognizing the dignity of others, showing them respect	287	85	11	17	19	19	12	7
5. Focus on „looking through/out of the window" (looking for allies, associates)	242	72	9	7	13	8	18	17
6. Willingness to serve others, help others (altruism)	233	69	8	5	9	12	17	18
7. Lack of focus on personal successes (merits), realizing one's own ambitions	131	39	2	3	5	7	10	12
8. Not accepting the opinions of others, relying solely on one's own judgments	87	26	3	2	3	4	7	7
9. Orientation to „looking in the mirror" (manifestation of narcissism, emphasizing individualism, courage)	67	20	4	4	2	2	4	4
10. Passivity, inability to act decisively, accepting „everything", tolerance for drifting (actions without goal/goals)	65	20	2	1	2	3	4	8
11. Failure to control the situation, submission to others, submissiveness, weakness	65	20	1	2	3	3	4	7
12. Not resisting life's necessities (difficulties), lack of flexibility in response to changing operating conditions	60	18	1	2	1	3	4	7

Source: own study based on the results of the survey.

Table 3.3 shows that the first two dimensions were considered to be the most immanent for humility i.e. more than 90% of the responses. The remaining ones, which received more than 50% of the responses, were the dimensions from 3 to 6. The results show a slightly different understanding of humility today in relation to the previously formed stereotype. In light of the respondents' statements, the essence of humility does not necessarily consist in accepting everything, being passive, not resisting difficulties, subordinating others, etc.

Being humble is related to the awareness of limitations, the ability to correct mistakes, the ability to accept criticism, to learn from others, to appreciate them, to look for allies/associates, and the ability to make changes. This 'pattern' of humility emerging from the study is consistent with that presented earlier, which was based on the analysis of the literature on the subject (however it certainly requires further in-depth verification).

As part of the study, using the 12-element core of humility, a self-assessment was also made, distinguishing the following four levels, hence:

- almost a half (48% of the respondents) stated that their humility is at an average level and the components with the highest share are: 2, 1, 3, 4,
- 22% assessed their humility as above average, and the most characteristic manifestations (components) were: 1, 2, 4, 3,
- 18% stated that their humility is at the minimum level and it is mainly determined by the components 11 and 7,
- 12% assessed that their functioning in the organization is associated with a lack of humility and that it is mainly determined by the components 10 and 9.

Table 3.4. Relations of humility with other managerial virtues

Managerial virtues	Impact in the direction of	
	increasing humility	diminishing humility
	% of indications	% of indications
Trust	15	3
Justice	17	8
Empathy	23	7
Intuition,	9	17
Enthusiasm	9	45
Ability to assess the situation	14	10
Altruism	14	9

Source: own study based on the results of the survey.

The study deals with the topic of humility against the background of other "managerial virtues", which determine the efficiency and effectiveness of management (Kłusek-Wojciszke and Gułaś, 2014). In particular, taking into account the co-occurrence of certain virtues (traits, abilities), their influence on the level of and the tendency to humility was taken into account. The results indicating the direction of the impact are presented in Table 3.4. It is worth noting that the selected virtues in the respondents' opinion are characterized by a two-way impact, they can contribute to both increasing humility and reducing its level. As seen in Table 3.4, enthusiasm decisively reduces the tendency to humility, while empathy is a virtue clearly supporting the tendency to humility.

Table 3.5. Personality types and humility

Personality Types according to Littauer	Components of personality types	% of indications relating to	
		type	component
Yellow, expressive (sanguine)	enthusiastic	15	21.2
	underestimating problems		6.6
	chaotic		13.7
	outgoing		31.0
	communicative		27.5
Green, friendly (phlegmatic)	calm	30	19.6
	works at their own pace		8.8
	avoids conflicts		25.2
	patient		25.2
	task-oriented		21.2
Blue, perfect melancholic	analytical	25	23.9
	reserved		17.4
	attentive to detail		19.8
	precise		21.4
	sensitive		17.4
Red, dominant choleric	confident	30	17.8
	rivalry oriented		6.4
	coal-oriented		25.7
	open		27.0
	substantial		23.1

Source: own study based on the results of the survey.

Considering that a manager's personality may be a predictor of the management style [...] as part of the self-assessment made by the respondents, an attempt was made to verify whether humility is particularly related to a specific type of personality and also within a given type with a specific component. A model approach of personality types according to Littauer (1997) was used. The results obtained in the study (Table 3.5), confirmed that humility remains in relation to all personality types. This indicates that in all the types, and consequently, in the various management styles determined by these types, there is a place for humility. The smallest share of humility (tendency to be humble) was recorded in the "yellow", expressive type of personality, although at the same time the component of this type, i.e. being social, was assigned the highest share (31% of confirmatory indications) among the components of all the types. Two types, i.e. "green", friendly, and "red", dominant, received the same number of indications, while "blue"– perfect – slightly less. The following were considered particularly unfavourable: striving for competition and underestimating problems (components of different types). However, for strengthening the tendency to humility, such components as openness and communication (they belong to different types) turned out to be important.

As part of the self-assessment, 73% of the respondents admitted that their personified level of humility remains relatively constant, and only 27% stated that their humility changes over time. The factors that cause an increase in humility include, among others, a sequence of various failures, increasing complexity and formalization of procedures (legal regulations), deteriorating health, accumulation of professional and personal experiences, a feeling of increasing dependence as a consequence of the expansion of the circle of colleagues/partners, etc. On the other hand, the factors that reduce the tendency to express humility include the relatively long period of good economic and financial condition, the inability to anticipate threats in the environment, and treating humility as a brake for the realization of one's (ambitious) goals.

Among those who admitted the instability of their humility, 86% stated that changes in this level are the result of deliberately made choices, while the others admitted that these changes are caused/forced directly by factors related to the conditions of the environment or the interior of the organization, i.e. the current situation, see Table 3.6.

Table 3.6. Assessment of the impact of the current pandemic situation on the increase in the share of humility (its manifestations) in management practice

Current Covid-19 situation	% of indications
• had no effect on the increase of humility	39
• responded in a passive way, i.e. such a need was noticed but no action was taken, there were no specific intentions to make changes in management	25
• the managers' approach has changed significantly; both in „thinking" and in the action of more signs of humility	24
• lack of an unequivocal position	11

Source: own study based on the results of the survey.

Examining the situational context, i.e. the impact of the current conditions related to the functioning of the organization on the participation of humility in management, requires further elaboration; the above results do not seem to confirm this clearly, which could suggest that the personality traits of managers have a more decisive impact here.

The declarations of the respondents regarding their conscious control of the level of humility (tendency to humility) are consistent with their opinions about the possibility of shaping (developing) "competence" – which is humility – 88% of the respondents indicated this possibility, while 12% were of the opinion that humility is a genetically encoded state and not subject to major revisions. Such a distribution of positions, despite everything, encourages looking for ways and tools to maintain a rationally justified level of humility in order to maintain a certain readiness in this area.

The possibility of this result regarding the respondents' declarations of respect for humility as a determinant of the management of the organization's activities in the future, was shown by 81% of the survey participants declaring such respect, considering that "we live in a world in which the ego attracts attention and humility brings results." Yet, 19% of respondents refrained from making such a declaration, recalling that "life is a struggle, constant competition, and so if you do not win, you lose".

3.6. Final conclusions

Humility has long been a subject of interest in philosophy, theology, psychology and, more recently, management. There is a need to intensify research on humility in the context of organizational management, especially because the "pendulum of pride versus humility" as a reflection of an ambivalent approach to functioning and to the development of the organization in the conditions of increasing demand for pro-social approach, increases the chances of humility in the effective implementation of sustainable development goals.

The results of the study confirmed the re-evaluations in terms of humility that have taken place over the years and which are promising when it comes to using humility in making changes, i.e. moving away from the current model of organization/economy development (moderated by GDP growth and consumption) towards development ensuring the integration of economic, social and environmental goals.

The conducted literature review and empirical research indicated the ambiguity of the concept of humility and the difficulties in achieving a consensus in its understanding. This, in turn, results in difficulties in formulating recommendations (including those for business), and constitutes a barrier in the preparation of tools allowing for shaping humility as the desired competence of the manager.

The results of the self-assessment of managers/entrepreneurs regarding the association of humility with different types of personality and, consequently, with different styles of management can also be considered as satisfying expectations, which allows its wide use by managers. The statements of the respondents (entrepreneurs, managers) regarding more 'humble' management in the future are also promising.

Part II

COMPETENCY DEVELOPMENT FOR KNOWLEDGE MANAGEMENT

Chapter 4

WHERE DOES KNOWLEDGE COME FROM IN THE ORGANIZATION? ETHNOGRAPHIC RESEARCH

Tadeusz Kowalski[a]

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4.1. Introduction

The advantages of having knowledge are widely recognized, both from the perspective of an employee, an organization, as well as that of whole economies, treating it as a source of competitive advantage, streamlining work, quality and product innovation (Błaszczuk, Brdulak, Guzik, and Pawluczuk, 2003; Morawski, 2006; Mahajan, 2017; Picker, Ruhnke, and Leker, 2009; Piech, 2009). A significant and still recurring theme is knowledge acquisition. The aim of this chapter is to present the subject of the emergence of knowledge based on ethnographic research, and to compare it with the assumptions presented in literature.

4.2. Literature review

Questions about the origin of knowledge can be considered in a narrow sense, as its source, being a specified subject, object or situation. In a broad sense, it relates to the process of knowledge acquisition by employees/organizations, which encompasses not only the new knowledge, but also the knowledge already acquired, the ordering of which may be subject to transformations.

Knowledge refers to information that has been structured so that it can be used in a certain area of activity (Probst, Raub, and Romhardt, 2002). Knowledge is created through a process of learning, gaining experience, accumulating information, organizing it into logical cognitive structures, linking with emotions, arranging as part of value systems (Bolesta-Kukułka, 2000, pp. 152). It is the effect of the thought process with the use of available information and of all human experience (McDermott, 1999). Davenport and Prusak (1998) indicate that knowledge appears as a result of the interpretation of information, comparing it with other information,

[a] Witelon Collegium State University, ORCID: 0000-0001-6927-151X.

identifying its implications and links. Thus, it can be noted that knowledge potential has its source outside and inside the person, while factual knowledge can only arise from individual reflection.

The effect of knowledge acquisition are its different kinds. The basic distinction is explicit knowledge (specified, systematized, easy to express and copy), and tacit/silent knowledge (linked to a specific person's experience, difficult to express, to record) (Polanyi, 1967).

Lundvall and Johnson (1994) divided knowledge depending on its purpose and use:

- know-what – knowledge of the facts,
- know-why – knowledge of principles and laws in nature, people's minds, and society,
- know-how – skills of people and teams, it is the ability to do something,
- know-who – concerns holders of specific knowledge.

Qiu Yuan Fu, Yoon Ping Chui and Helander (2006) identified the following types of knowledge in production:

- market knowledge – concerns the relations between business partners,
- human knowledge – possessed by company employees,
- technological knowledge – concerns production processes in an enterprise,
- procedural knowledge – concerns procedures in force.

Huseman and Goodman (1999) indicated five elements of knowledge:

- experience – historical perspective of knowledge, intellectual resources accumulated from the past,
- truth – state of affairs accepted as true,
- judgment – ability to assess unfamiliar situation taking into account the value system adopted,
- intuition – decision-making ability with the absence of complete information,
- cultural and ethical value systems – influence behavior and established habits.

Hedlund (1994) made a practical division of knowledge into individual, group, oganizational and inter-organizational, which is particularly important from the perspective of knowledge, but also from the viewpoint of indicating the boundaries for its later dissemination, whereas Barth (2002) distinguishes three faces of knowledge: specific assertions, method of transmission (communication), and existing social relations.

The creation and types of knowledge became the basis for the very valuable and popular SECI model. It is based on reciprocal transformations of explicit and tacit knowledge (Nonaka and Takeuchi, 1995):

1) from tacit to tacit knowledge – socialization, experience sharing,
2) from tacit to available knowledge – externalization, expressing knowledge by means of available concepts,
3) from available to available knowledge – combination, ordering and blending,

4) from express to tacit knowledge – internalization, putting knowledge into use, learning by doing.

Knowledge acquisition represents an important stage in knowledge management models which consider them from the point of view of direction, methods, supporting tools. The following terms are used in the context of knowledge emergence: acquisition, creation, learning, adaptation, grasping the knowledge, generating, and importing (see Chmielewska-Muciek, 2018; Krok, 2009).

Wiig (1993) proposed the knowledge management model in which he distinguished four stages: knowledge building, knowledge maintenance, compilation, usage. The first of them covers acquisition, analysis, reconstruction, synthesis, codification, modelling and organizing knowledge.

In the model proposed by Probst, Raub, and Romhardt (2002), the first three stages are knowledge localisation, knowledge acquisition and knowledge development. Localisation of knowledge involves searching for information about knowledge in the organization and its environment. Knowledge acquisition involves obtaining it from external sources. Knowledge development consists in increasing the body of knowledge that is lacking, or creating completely new knowledge through innovative product/organizational solutions.

The authors point to such factors for improving knowledge transfer as: designation of persons responsible for knowledge resources, internal computer systems, open nature in internal communication, increase in the number of internal experts. The measures that are helpful in activating them are: a list of employees' knowledge, a list of experts' data, knowledge map, knowledge topography, and in the sphere of organizational behavior – pursuit of compatible interests, error tolerance, encouraging creativity, externalizing knowledge. The external sources of knowledge are organizations dealing with the provision of information, advisory firms, industry organizations, research centres, universities, outsourcing, partners' competences. The following ways of obtaining knowledge were pointed out: teamwork, recruitment, different forms of cooperation with other organizations (from occasional exchange of information, through strategic alliances to acquisitions and mergers), knowledge purchase, research and development (separately, in cooperation), imitation, 'dismantling method' (learning by analysing the design of competitors' products). The manner of knowledge acquisition, its form, the conditions existing during the whole process, all influence its use in the work process.

Jashapara (2006) considered in his model the emergence of knowledge in the stages of knowledge discovery and knowledge generation. He draws attention to the awareness of the role of knowledge and knowledge generation, combining organizational learning with knowledge management technologies. Knowledge is acquired through inheritance (obtaining it from the founders), transfer (hiring of suitable employees), acquiring (tracking the activities of other companies, information search, monitoring of company's results), borrowing (knowledge from competitors gained from consultants, through industry meetings, publications) and acting (gaining experience by learning from previous and currently performed work, taking on the experience of others, questioning of assumptions). The actual appearance of knowledge in the workplace and in the organization depends on the circulation of information and organizational memory (the way knowledge is recorded, stored and retrieved).

Two approaches are relevant with regard to how knowledge is placed: codification and personalization. The strategy of codification consists in information and knowledge gathering in extensive computer databases, where it may be easily searchable and shareable. The strategy of personalization provides opportunities for contact between people and the direct transfer of their knowledge. The computer systems may serve as a tool enabling contact (Strojny, 2003).

The way in which specific actions are taken and knowledge is used, decides on the particular strategy being developed. Mikuła (2006) distinguished four main strategies in respect of knowledge acquisition and development: internal creation strategy, the strategy of creation through interaction, internal expansion strategy, absorption strategy, indicating the corresponding implementation methods.

Knowledge acquisition sometimes permeates the whole approach to knowledge management. Knowledge acquisition includes the identification of relevant knowledge, knowledge capture, organization, and transfers to appropriate action. Selection means choosing the knowledge already possessed, and transferring it to appropriate action. Assimilation refers to the appropriate assimilation of knowledge. Knowledge generation involves monitoring the oganization and environment and capturing relevant knowledge. Emission refers to the transfer of knowledge to the environment (Holsapple and Joshi, 2004).

Similar conclusions were reached by Kowalczyk and Nogalski (2007). In their Knowledge Management Concept, they recognized the role of knowledge manager, structural solutions in the organization and tools and techniques in the implementation of the knowledge process (four levels: integrational, structural, mega process and tools). Within the knowledge process, they highlighted the acquisition and development of knowledge, codification, transfer and use. However, they pointed out that knowledge is created at every stage.

Knowledge is acquired through the use of various tools (Kowalczyk and Nogalski, 2007; Patalas-Maliszewska and Kłos, 2017). It may be acquired individually, but also as part of company-wide programs that may address problem-solving, strategy development or innovation (Rudolf, 2009). A very important level of facilitating, or even enabling knowledge acquisition are both technology and the IT tools used (Sarka, Heisig, Caldwell, Maier, and Ipsen 2019; Sitarski, 2010; Turulja, Cinjarevic, and Veselinovic, 2021; Wagner, Vollmar, and Wagner, 2014).

In light of this brief review, it is clear that great importance is attached to the emergence of knowledge. Different tools, types, stages are indicated. It is reasonable to examine whether employees perceive the situation in a similar way.

4.3. Empirical research methodics

It was decided to realise the objectives of the research based on ethnographic research. Ethnography appeared in the organization as a means of obtaining an answer to the question: “What do people do in an organization?”, and to identify and hone the questions posed in the actual work (Cefkin, 2010). The justification for its use is the closeness of the results to the actual situations, increasing the understanding of the social actors (Kostera, 2011). During the research, written statements were collected to the question.

“Where does my knowledge in an organization come from?” They can be considered a form of unstructured written interview as they constitute the first part of the research. The next two, carried at approximately monthly intervals, deal with questions such as “How was knowledge created? A description of a particular situation”, “Knowledge sharing – what it looks like and what it depends on”. Some of the statements appeared in the form of scoring, some in the form of a narrative. Such discretion has its limitations in the form of the lack of control over the development of content, excessive detail, and the exaggerated ‘uniqueness’ of each person (Van Maanen, 1988). The advantage is freedom and independence in the choice of vocabulary. Narratives make it possible to present subjective perceptions, ‘explanations’ allowing to understand ‘other worlds’ being an everyday occurrence for others (Watson, 2012; Ybema, Yanow, Wels, and Kamsteeg, 2009). However, it must be regarded as a different source, along with the quantitative research (Dyba and Stryjakiewicz, 2019; Marczewska and Jaskanis, 2018; Stachowska, 2018), providing information on phenomena in organizations, whose unquestionable advantage is the possibility to ‘hear’ the people in their original form. This makes it possible to detail future research, either quantitative or qualitative (Table 4.1).

Table 4.1. Occupational characteristics of the respondents

Nature of the activity	Industry	Number of the respondent
Production	Ceramics production, warehouseman, automotive industry, Logistics leader in production	1, 2, 12, 20, 23, 25
Public administration		10, 15, 22, 28
Services	Accountant, legal assistant, billing specialist, human resources, customer service in the transport industry, trading, cosmetic industry	3, 5, 6, 9, 11, 13, 14, 16, 17, 18, 19, 24, 26, 27, 29
Managerial	Property manager, administrator of an integrated management and environmental system, head of purchasing department in a manufacturing company, bank manager, production coordinator	4, 7, 8, 21, 30

Source: own study.

The research was carried out on 5 March 2022 among representatives of 30 organizations from different industries, who are students of the management faculty of Witelon Collegium (see Table 4.1). The written responses obtained were then converted into a digital form, which made it easier to categorize the emerging content. Based on the literature review, key issues regarding the emergence of knowledge in an organization were identified as source of knowledge, mode of transmission, reason and time. On this basis, the information obtained was categorized into five groups, apart from the above four, further specifying other relevant information regarding knowledge. The adopted list of categories was open to the possibility of others appearing. Some of the responses are presented below. The selection was guided by the desire to thoroughly examine the topic and to present a broad spectrum of views.

4.4. Empirical research findings

The research results were grouped according to an agreed scheme. Persons, things or phenomena were indicated as sources of knowledge. The greatest importance was placed on personal work leading to the acquisition of experience and colleagues: "My knowledge of the organization I am employed in and of the profession pursued, comes from experience. Experience is something that we may acquire every day by carrying out new professional activities" (respondent 2); "The school gave a solid foundation, which I could deepen through training and courses. However, real knowledge especially practical knowledge is given in this sector by experience" (18). "In 80% of cases I needed self-study to work effectively in this area, arriving at solutions by deduction, by trial and error, this was the case with all the more complicated issues" (24). "The longer I work the more meetings I hold, I learn about people's behavior and how to react properly"(26).

The statement of one person accurately highlighted the role of the tasks performed at work as an impulse to the emergence of knowledge. "I can say from my own experience that I have my knowledge so far thanks to my work, thanks to the fact that I perform various tasks that require me to reach out and read about a given issue" (28).

As regards persons being the source of knowledge, colleagues, superiors, customers, senior staff and employees from other organizations, the following comments were made: "I owe the acquired knowledge mostly to senior colleagues from our work team" (2); "It was my current Master who taught me everything. However, I had to learn a lot of things myself, for example the range of products, decorations, our clients' specifications'"(1); "I most often obtain the knowledge necessary to perform my duties from my supervisor, from articles from reliable sources and from the provisions of law" (3); "Senior employees who can explain and sometimes show how to do a task are also helpful (…) I can also count on help by contacting employees in similar positions who work in another region"(15); "The source of knowledge are people who appear in an organization and who exchange their knowledge with others (employees and clients)" (6).

The source of knowledge is "one of the employees who has worked in the purchasing department in one company for 30 years now and is a treasure trove of knowledge for me. Thanks to him I learn every day, I obtain knowledge on topics related to the most specific purchasing needs, for example the toothed clutch, where best to buy, which supplier to choose that is reliable in supplying such things" (8).

Apart from own work and employees, other sources of knowledge also emerged. "My knowledge in the organization mainly comes from the Internet, specifically from paid-for portals. (…) I also draw knowledge from different kinds of books, textbooks" (6). "Most of my knowledge comes from legal acts. In carrying out my tasks, I must stay informed on different laws, legal provisions. On the basis of these, I carry out most of my tasks at work. Very helpful and equally important is participating in training courses that are of great significance as the legal provisions keep changing, or I have a new task to complete that I have not done before" (15).

There were fewer detailed answers in respect of the manner of knowledge transfer, usually dominated by the general description of training and conversations. "I took lots of notes and, based on those, I later knew what to do (…). By showing me a given thing (by the manager – T.K.), I recorded it, and this is how I started to acquire knowledge"(1). "Knowledge is conveyed orally during meetings, settlements, coaching, talks. We obtain knowledge by working in a team – we learn from each other. E-mails from head office or from directors are sent, knowledge is also drawn from procedure update notices, standards, course of action" (21).

The following records appeared with regard to the significance of observations: "In my organization, I most often obtain knowledge from observation and from analysis of what has been done so far" (3). "Conveying information is essential for the acquisition of knowledge in a given field, as we will not be able to deal with the problem through observation alone" (25).

It seems right to emphasize the role of observation and previous work. However, verbal transmission having the value of explanation is also essential.

Another person wrote broadly about the means of knowledge acquisition (17): "when I came to work, I was sent to training in the company's distribution centre, it lasted 8 hours and consisted of several modules. I was presented with the company's structure, the labor code and internal documentation concerning the position in the company. I was assigned an instructor in my shop unit who conducted the induction process. In order to fill gaps in the knowledge acquired so far, I also underwent instruction training on the Leon system, which contains all the most important information on the company, its structure, plans, processes, etc. I can also gain knowledge about the company from the Lidersi [Leaders] program, in which all the key information is updated, e.g. on the staff changes."

A lot of people pointed to the creation of databases, sources of knowledge, being aware that this will make future work easier. "New events create new processes. We seek to create the so-called OPLs (one point lesson), e.g. how to fill a given report, how to recruit for a given post, to be able to replace each other in an emergency" (26). "In order to work efficiently in my organization, a whole compendium of knowledge is being created and to which a lot of employees contribute"(6). "Our company has very extensive databases on property owned by contractors and tenants. To acquire knowledge about them requires knowledge and skills in itself" (4).

Respondent 12 lists the sources and ways in which knowledge emerges: "taking on difficult and demanding assignments, observing competition, listening to one's own and others' opinions, trainings, learning from our own mistakes, striving for self-development and excellence, talking to more experienced persons, exchange of experience".

Another person makes a similar listing. In his/her opinion, knowledge derives from: "working with and talking to people, from in-house and external training, procedures and work instructions, solving day-to-day problems, from making mistakes, my interest and desire to know everything that goes on in the organization they work for, and from the challenges that are posed for me" (30).

Such a listing may be perceived as an unwillingness to give a longer speech, but it may also be treated as the difficulty of separating them, pointing to interconnectivity, the interweaving of knowledge sources in the organization. An example of seeing such a mix of knowledge sources is the following statement: "Basic knowledge on the functioning of an enterprise and of the program [software] was conveyed to me by the manager. Information on the changes in the service provision is conveyed to us by the managing director of an enterprise. I translate the German program and German letters via an application on my phone. I discovered many of the program's functions myself and learned how to use them" (19).

The chain of acquiring knowledge from general to more specific is indicated, using the help of other persons, technology and own learning.

The reason for the emergence of knowledge can already be found in the above quoted statements in the form of occurring difficulties, trials and errors, tasks or the very concept of work.

This is noted and supported by one person by the following example: "Knowledge comes from solving different performance problems. My task was to create a register of chemicals used in the organization. The register contained information such as: department in which it is used, the process in which it is used, what dangerous substances the chemical contains. This has enabled me to broaden my knowledge of the company's processes, I got to know each department better, the specific nature of the work of each department" (7).

Another reason may be the deliberate activity of the organization: "A knowledge-sharing program has been created in the organization, where during meetings that may be attended by everyone, other employees present topics of interest to them, e.g. a meeting was held during which an employee talked about how to create an interesting presentation" (16).

Information on the timing of the emergence of knowledge is usually linked to the reason. Information can be broadly categorized into induction and follow-up dates, as well as into that concerning preparation for work and the need to acquire knowledge in the current situation. The way in which information is conveyed was related to its suitability over time. Other methods were indicated as useful before carrying out the work, others during the work.

“We draw knowledge on day-to-day activities of an organization from the Internet and e-mail; moreover, the activities of our team require daily coordination meetings with colleagues” (4). “I acquire and extend my knowledge and ability to work with ERP software, used by the organization, during my daily work. In addition, the daily occurring problems force me to find the errors from which they arise, and to remedy them. Such tasks deepen my knowledge and allow me to avoid similar situations in the following days at work” (14). “In the oganization I work for, knowledge is conveyed by way of meetings with a supervisor. This pertains to issues relating to daily performance of duties. Another example is training. During the training, the participant acquires knowledge in a given field, i.e. working on machines or packaging” (25).

In fact, there was a lack of major information from the other category, except for the following: “By nature, I am also a person who demands a lot from herself, this also has had a major impact on my knowledge of the organization” (1).

4.5. Final conclusions

The research allows to draw several conclusions. With regard to the way in which the research was carried out, it seems appropriate to supplement it with additional questions that could (although would not have to) invite to provide a more detailed answer. The literature indicated the following issues regarding the subject matter addressed: types of knowledge, tools, phasing.

The research question explicitly referred to the source of knowledge. It transpired that the responses were not only concerned with some preliminary process, but in principle with each stage of work. Knowledge was needed when hiring, carrying out induction, implementing daily, problematic and new tasks. Regarding the types of knowledge, the answers concerned the acquisition of theoretical and practical knowledge. However, a distinction between knowledge ‘before’ and ‘during’ the task seems more relevant. It was the performance of one’s job, instructions received, and occurring difficulties that were often identified as a key knowledge trigger. These led to the search for, or the creation of knowledge. The demand side of discovery outweighed the supply side (Moszkowicz, 2014). New knowledge was created precisely in response to a given situation that inspired awareness, ordering, or the transformation of previously held information. The workplace constitutes a significant source and incentive to create knowledge, but requires a willingness and commitment to create, e.g. measurement methods (Olszańska, 2014). It is not possible to predict the creation of knowledge ‘during it’, but suitable conditions to allow the emergence of knowledge-generating relations may be planned, which have a significant impact on talent discovery in an organization. The remark about the impact of personal attitude on dealing with the knowledge processes in the organization is valuable in this context. A specific task/difficulty allows for the verification of employees’ talents in the scope of the ongoing disclosure of knowledge.

Among the ways of acquiring knowledge there can distinguished those concerning tacit knowledge, such as gaining experience, workplace training, or reflection, and those concerning rather explicit knowledge such as talks, training, and creating databases.

The separation of the accepted categories from the material received proved difficult, as they often occurred simultaneously. This appears to be an important advantage of an ethnographic research, through which one see not just a list of activities with a percentage share. It may be noted that sometimes knowledge was created as planned (training activities), using only one tool (database), and sometimes everything happened simultaneously (talk, legal provisions, reflection, making mistakes). In the author’s opinion, a metaphor emerging from the research is the ‘knowledge cocktail’ (understood as a mix, amalgam of different components), which seeks to respond, as far as possible, to the challenge of the situation. The use of this knowledge cocktail adds essential ingredients, enriching its composition in the future. The processes and types are important in planning and evaluating the achievement of the organization’s objectives. The ease of the creation of conditions for the disclosure of knowledge is more important during the tasks, whether in the form of a database, colleagues interested in assistance, or the time and the possibility of making mistakes.

Chapter 5

ORGANIZATIONAL FOCUS ON INTEGRATED PROCESS MANAGEMENT IN THE CONTEXT OF HUMAN RESOURCE MANAGEMENT – SELECTED ASPECTS

Tomasz Sierpowski[a]

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5.1. Introduction

By observing the environment one can see the enormous potential of the digital economy. The impact of information technology on companies and organizations has led to the development of tools fostering digitalization and process automation. Solutions based on artificial intelligence are increasingly common, which casts new light on interpersonal relations.

In order to better manage processes, projects and knowledge in the digital economy, the need to constantly focus on social and cultural aspects of organizational management is evident. In the literature on the subject, issues and concepts related to processes, projects and knowledge are usually approached separately, but because they are present in every organization, it is worth examining them together from the perspective of a process-oriented organization. Since these three planes – processes, projects and knowledge – are mutually complementary and overlap with each other, in order to improve management in one of the areas, new attitudes and behavior must be promoted among managers as well as members of project and process teams.

The social aspect, manifesting itself as employees' knowledge, commitment and motivation to develop their ability to learn, influences organizational learning. It is desirable to successfully manage behavioral changes in organizations, introduce innovative and creative solutions, and perceive the turbulent environment in the context of opportunities and challenges, not threats. Therefore, the aim of this chapter is to demonstrate that process-based management of organizations needs

[a] School of Management and Banking in Poznań, ORCID: 0000-0001-5106-3640.

the synergetic potential of process management and human resource management. Improving process-based management and fostering organizational learning begins with individual learning within the organization. It is the employees, along with their unique potential for self-improvement that constitute the basic building block for Integrated Process Management (IPM) (Bitkowska, 2019, p. 9).

5.2. Focus on the process vs. social aspects of development

Processes and projects share a number of similarities. They complement each other on the way to achieve the goal and can be used to promote development and streamline organizational management. They are implemented in a concrete environment of internal and external stakeholders who actively influence their ultimate form. In most cases, processes and projects are carried out in accordance with the requirements and specifications of customers or clients, recipients of products and services, as well as sponsors. They are custom-made and tailored to their needs. Many other similarities between processes and projects are indicated, including the same basic management parameters, such as time, costs, and quality (Jokiel, 2008, p. 99).

Trocki believes that projects are essentially processes (Trocki, 2012, p. 67), while a process-based approach results in perceiving the organization through the prism of interrelated processes, treating all activities that make up the processes carried out in various stages and for different purposes as one whole (Nowosielski, 2013, p. 139).

Nowosielski stresses that the subject of projects and processes is, to a certain extent, mutually complementary (Nowosielski, 2017, p. 140, 2018, p. 109). In any organization, processes naturally coexist and overlap with projects, resulting in complementarity. "[A project] is considered to be a one-off process, and treating a project as a specific type of process leads to the improvement of processes that make up project management. As part of a project, alongside unique activities there are processes – repetitive activities that can be identified, systematized and subjected to the improvement procedure" (Nowosielski, 2013, p. 137). The author highlights problems of a 'social nature' that make it difficult to improve processes "in a situation where elements of a process are forced into a run-of-the-mill project template to be executed by the project manager and team members" (Nowosielski, 2013, p. 137). The project manager is not always able to integrate activities subject to the process approach requirements, which may be equally troublesome for the leaders of the organization who lack a strategy for shaping the culture and awareness of a process-based approach. The problem of the slow pace of change in process-oriented organizations faced with a dynamically changing environment results from the lack of a knowledge-oriented approach and the inability to learn of both individuals and the organization.

"Companies must learn to adapt to changes in the environment – the more intense the changes, the greater the need for learning" (Zgrzywa-Ziemak and Kamiński, 2009, p. 25). There is a growing demand for employees focused on the customer and customer satisfaction, who are driven by quality and committed to cooperation within their team, capable of analysis and open to improvement, accepting of changes and able to solve problems creatively, articulate, ethical and identifying themselves with the organization. Conversely, there is a need for intelligent, learning and self-improving organizations in which people at all levels, individually and in groups, constantly work to achieve the goals and gain knowledge that genuinely matters to them (Grudzewski and Hejduk, 2001). Zaliwski defines a learning organization as an entity that acquires and implements knowledge into its structures, products, organizational processes and practices (projects), and "wherever possible" (Zaliwski, 2000, in: Zgrzywa-Ziemak and Kamiński, 2009, p. 29).

In the context of the **process-projects-knowledge triad**, Bitkowska assigns to knowledge workers a strategic role in the process of the evolution from classical to Integrated Process Management (Bitkowska, 2019, pp. 91-98). According to the author, IPM is classic process management based on the consistency (complementarity) of the process-projects-knowledge triad and the synergy between the three elements, implemented through a systematic combination and adaptation of process-based concepts and methods. It includes a dynamic (agile) and comprehensive influence on intra-organizational processes, in accordance with strategic principles of creating value for the client and other stakeholders (Bitkowska, 2019, p. 9).

Presumably, organizational learning required to obtain "competences that affect competitiveness and ensure market success" (Kiełtyka, 2017, p. 170), begins with a situation when "individuals inquire on behalf of an organization in such a way as to lead to change in the values of organizational theory-in-use" (Argyris and Shön, 1996, p. 16). "Organizations learn only through individuals who learn. […] without it no organizational learning occurs" (Senge, 1990, p. 139), but it is only the wider social perspective that makes us realize that certain processes occurring at group level (related to communication and cooperation) can ensure that individual learning contributes to organizational learning.

Therefore, endowing human resource management with a strategic dimension (Lundy and Cowling, 2000, p. 88) is what allows the organization to enter the path towards an adaptive, dynamic and agile approach to process management. Subdisciplines of human resource management, such as knowledge management and talent management, as well as the concepts of a learning organization and an individual as an agent of organizational learning, make process management more human.

Such an approach is also postulated by organizations specializing in practical business process management. "The biggest challenge we had was actually the human aspect, not the systems and technical aspect. We were suddenly saying 'you're not in charge of the network anymore, we are.' You've got to make sure everyone's ok about it before you can move forward" (Capgemini, 2017, p. 27). During the implementation of processes that have the most structured, formalized form, a highly repetitive nature, and focus on the client's needs, attention should be paid to the "package of employee skills indispensable in social situations at the level of interpersonal relationships in order to communicate and cooperate" (Langmaack, 2014, p. 23).

Process orientation is closely connected to customer orientation, but Lichtarski indicates that successful organizational management also needs the right level of integration of activities subordinated to the requirements of the process approach (Lichtarski, 2004, p. 19). Therefore, process management is given priority not only because of an organization's customer orientation and emphasis on fulfilling orders and carrying out projects for them, but also because the company should increase its organizational efficiency in every area.

The social competences of employees involved in a project, especially of the project leader, have been thoroughly researched and described in the literature (Litke, 1995; Pawlak, 2007; Kellner, 2000; Trocki, 2012). In process management, however, the development of employees' competencies is viewed through the prism of meeting the customer's needs; this approach is reflected in management procedures such as instructions, maps, and flow charts. The popularity of the process-based approach results precisely from the growing need to satisfy the requirements and expectations of the customer (Trocki, 2014, p. 68). Although Lichtarski dismisses process management as a "management fad", it appears in various concepts and business orientations, and can also be found in each of the other orientations: on the market, quality, results, strategy, knowledge and person, whose education and improvement also occur through processes (Lichtarski, 2010, pp. 166-176).

Researchers situate the concept of process management in the sphere of contemporary management trends promoting customer orientation and focused on meeting their requirements using IT systems as a support factor determining the improvement, implementation and monitoring of processes (Trocki, 2010, pp. 130--140).

Customer Process Management, attention to the changing customer needs, tightening cooperation with customers in the areas of design, joint control and improvement of processes, as well as learning from customers (Jesus and Rosemann, 2017, p. 15) often mean that organizations neglect systemic thinking and activities conducive to the improvement of other management systems. This is confirmed by studies (McKinsey & Company, 2018) which recognize the problems and limitations of a 'blind' approach to customer service. The indicated reasons include insufficient delegation of powers, failure to use the intellectual potential of employees, and a mechanical approach leading to the emergence of risks (Capgemini, 2012). According to research (Capgemini, 2017), large organizations make continuous efforts to create and maintain a rewarding working environment that mobilizes and motivates their employees. An important benefit of improving the processes connected with communication, knowledge and experience sharing, which lead to better team integration, is their positive impact on employee satisfaction. “Business Process Management initiatives can have a positive impact on many different parts of an organization” (Capgemini, 2017, p. 20).

A multidimensional look at process management allowed Bitkowska (2019, pp. 130-139) to distinguish the following areas of IPM:

- dimension: strategic fit,
- dimension: corporate governance,
- dimension: technologies and tools,
- dimension: structure and culture,
- dimension: human resources.

This picture shows the importance of human resource management. It not only integrates this concept into a coherent whole, but can be used as a strategic tool in the process of adaptation to the changing environment and ensures a higher efficiency of process management. It is also a response to the author’s postulate of insufficient empirical research in the field of soft aspects of process management in the context of knowledge workers. Employees’ skills (capital) are of fundamental importance here, essentially determining the effectiveness and efficiency of the project. Therefore, it is important to properly implement human resource management with regard to individuals involved in the project (Listwan and Sierpowski, 2016, p. 27).

5.3. Key areas of human resource management used in the implementation of IPM

Most process-based technologies used to focus on routine, structured procedures, downplaying the employees’ role in favour of concentrating on process automation. The staff were considered part of the process. A change is currently ongoing in organizations using Integrated Process Management. Emphasis is placed on a strategic approach to managing process teams, which results from the recognition that the team creates and implements processes and thus contributes to achieving the intended organizational goals. The team’s work must be performed under certain conditions, in an appropriate organizational structure consisting of:

- an organizational culture ensuring a common vision and purpose of work,
- openness, cooperation, creativity and a positive attitude to the environment,
- using appropriate process terminology,
- employee empowerment and inclusion in the decision-making process,
- flexibility and openness to change,
- developing professional competences,
- goal orientation,
- engagement and awareness that the results of teamwork reach the internal and external stakeholders and are assessed by them (Davenport, 1993; Hammer and Champy, 1997, as quoted in Bitkowska, 2019, p. 42).

The challenges faced by process managers and the need for continuous development and improvement of the processes driven by the changing expectations of customers, employees and leaders indicate the key areas that need strengthening on the way to implementing IPM. In order to include process management activities in the mission and vision of the organization, it is necessary to start with the principles of human resource policy, which should be aimed at attracting and retaining highly qualified staff who will efficiently implement services (processes) for the client as well as internal processes improving the organization.

5.4. Strategic areas for implementing the IPM concept

Leadership

In order to successfully implement Integrated Project Management in an organization, it is very important to ensure the involvement of the people who perform leadership functions. Deloitte research (Deloitte, 2018, 2021) shows that a crucial role in securing market competitiveness and advantage is played by the leaders' ability to use their knowledge and skills to build 'super teams' that combine people and technology. In order to evolve towards Comprehensive Business Process Management (Harmon, 2010, p. 77), it is necessary for leaders to constantly develop and increase the organization's ability to find, attract and retain skilled staff (Listwan, 2011, pp. 405-418). Senior leaders' support sends a message to the rest of the organization that customer-focused processes and organizational growth are interdependent. A change leader "looks for change, knows how to find the right changes and knows how to make them effective both outside the organization and inside it" (Drucker, 2000, p. 63). The leader's role is to generate new solutions, but also motivate employees and stimulate their creativity in coming up with their own concepts. Emphasis on adaptive problem solving involves embracing change and responding to customer needs, encouraging active action and problem solving within the organization – i.e. initiating activities for organizational efficiency. These areas cannot be separated, they coexist. Therefore, in order to improve management processes, eliminate waste and inefficiencies, it is worth honing the issues connected with customer service processes as well as those aimed at organizational improvement. Such a comprehensive approach to all processes in the organization is intended to achieve a synergy between managing customer-focused processes and supporting processes that are not directly connected with the customer.

Organizational culture

An organizational culture focused on process management can be a source of competitive advantage. The very concept of organizational culture is multifaceted and includes values cultivated in the organization, i.e. situations or states of affairs that the staff strive for, individually and collectively (Koźmiński, Jemielniak, and Latusek-Jurczak, 2014, pp. 224-225). Importantly, process management uses dedicated structural solutions that force the organization to adopt the process criterion and group tasks that make up processes (Romanowska and Trocki, 2004, p. 102). Attempts to combine the structure of a process organization with the functional structure give rise to unfavourable phenomena, such as scrambling for resources and power between the process and functional systems, depreciating the importance of processes, and greater costs for the organization, which translate into difficulties in building a coherent system of relations and behaviors of employees (Grajewski, 2007, p. 256). Moreover, if the customer's behavior and needs – crucial factors for a process-focused organization – are taken into consideration, environmental diversity comes to the foreground, which includes "emotional, cognitive and behavioral elements of employees' attitudes" (Pocztowski, 2007, p. 180).

The climate and culture of an organization are largely derived from its leaders and decision-makers, but the goal of a transformation towards a process-based organizational structure is to "shape organizational culture on the basis of values and establish clear rules that will apply to all employees" (Grajewski, 2012, p. 112). Importantly, however, both individuals (employees) and the environment (project/process teams) change their values rarely, reluctantly and slowly. According to some researchers, philosophy, emotions, norms and patterns are a "receding tide," and the interest in using these tools for strategic purposes will diminish (Oleksyn, 2014, p. 564). Therefore, it is worth stressing that teamwork and values that foster autonomy, entrepreneurship and creativity in employees (Skrzypek and Hofman, 2010, p. 6) are tools used by leaders to develop "organizational personality." According Drucker, it is worth bearing in mind that "culture eats strategy for breakfast" (Drucker, 2006).

Communication in IPM-oriented organizations

Communication is a central skill and the oldest social process with regard to social competences. According to Nowosielski (2013, p. 143), the project/process manager's social competences include:

– communication skills,
– cooperation,
– motivating,
– conflict resolution,
– customer orientation.

Other researchers (Mière, 2012; Nowosielski, 2013; Skrzypek, 2009; Skrzypek and Hofman, 2010) perceive the communication style and information flow as areas of strategic management. Leaders and project/process managers play a special role in shaping these systems, and their skills determine whether they will rise to the challenge that awaits them (Listwan, 1995, p. 22).

Among the determinants of internal communication, Karaszewski and Lis single out the communication skills of managers and employees as the most important factor influencing the development of business processes and the organization's potential

(Karaszewski and Lis, 2014, p. 188). An organization striving towards IPM ought to focus the employees' awareness not only on meeting the customers' requirements, but also on how to communicate with them, actively participate in information flow processes within the team, use various communication tools that facilitate these processes and record the message. Thanks to these elements, customer-oriented processes as well as those aimed at improving the efficiency of the organization and teamwork can be mutually beneficial. Barriers in communication stem from the culture of individuals and groups participating in the processes and the differences between these cultures. The diversity of project/process stakeholders reveals the complexity of communication as a process. Additionally, it may be hampered by cultural differences between the sender and the addressee of the message, as well as a number of obstacles of a physical, linguistic and emotional nature, including problems with perception, lack of trust or low credibility. It is worth adding that in any initiative, parameters such as time, budget (cost), scope (quality) of projects/processes increase the risk of misunderstandings, which poses challenges for managers, generates conflicts and affects the overall atmosphere of work and cooperation.

Therefore, it is postulated that communication improvement training in process-oriented organizations should involve all process participants, not just leaders and managers. Customers should also be educated and invited to use appropriate information channels and communication tools. In improvement and training processes, it is worth paying attention to issues connected with effective communication, teamwork, customer needs, organization and the optimization of external and internal processes, process/project-based approach, openness to change and continuous quality improvement.

The list of essential competences of contemporary process-oriented organizations, which participate in the fourth technological revolution, create a knowledge-based economy and develop Integrated Process Management, is very long. It undoubtedly includes a focus on customer and customer satisfaction, quality orientation and participation in projects, team cooperation, the ability to analyze and diagnose, innovation, communication, entrepreneurship, identification with the company, embracing change and problem solving. Moreover, an ethical attitude and the ability to create a friendly atmosphere in the workplace are important yet often underestimated factors.

5.5. Final conclusions

The strategic management school, also known as the school of resources, approaches employee skills and learning as a key source of success and competitive advantage of the company (Obłój, 1998, p. 85). Managers overseeing projects and processes should adopt this approach to effectively achieve goals and improve the efficiency of managing the entire organization. Being customer-focused is not enough – it is the creative and innovative attitude of employees that guarantees high quality of process management. An employee who participates in processes should be perceived as the one who gathers knowledge about the processes and constitutes the intellectual capital of the organization. Along with the ability to work in a team and use and share knowledge and experience, the employee contributes to organizational learning and improving the quality of processes.

The underestimation of social processes by managers results in perpetuating the lack of independence, entrepreneurship and creativity among employees, legitimizes a closed attitude and creates real threats to the implementation of processes, their goals and strategic assumptions. Therefore, it would be hard to disagree with Nowosielski in that process management should be perceived as more than a management method – a philosophy (Nowosielski, 2008, p. 17) to be embraced by employees. Motivating employees to perceive a specific organizational reality, including their own benefits from membership in the team, is a huge challenge for the managers.

Process management issues and managers' limited awareness of the existing relations between processes-projects-knowledge make the postulated strategic approach to human resource management still topical. The individual phases of this function, activities such as personnel planning, employee selection, people management and leadership, motivating, rewarding and developing employees, are elements of the Integrated Process Management system.

Chapter 6

COMPETENCY GAPS IN THE FIELD OF DIGITAL COMPETENCIES OF UNIVERSITY OF ECONOMICS STUDENTS

Małgorzata Tyrańska[a], **Sylwia Wiśniewska**[b], **Robert Szydło**[c], **Marek Koczyński**[d]

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6.1. Introduction

Industry 4.0 brings various challenges, especially in terms of digital competencies. The core technological areas related to Industry 4.0 include: big data, cybersecurity, mobile robotics, cloud computing, additive manufacturing, the Industrial Internet of Things, and cobots, human collaborative robots that determine the emergence of new digital competencies (Dutta and Zielińska, 2021; Koumas, Dossou, and Didier, 2021). In the conditions of Industry 4.0, human capital becomes a company's main asset and significantly determines its competitive advantage on the market. Moreover, the dynamics of changes in the labor market is faster and faster, which also means that the existing competencies are quickly become outdated and the demand for new digital competencies is growing (Flores, Xu, and Lu, 2020; Kannan and Garad, 2021; Lula, Wiśniewska, and Wójcik, 2019).

Digital competencies are an urgent need for students in the 21st century (Sánchez-Caballé, Gisbert-Cervera, and Esteve-Mon, 2020). Creating and developing digital competencies through appropriately prepared study programs is of key importance in the context of work efficiency achieved by graduates of studies in the workplace, and also contributes to the minimization of the competency gap. Bridging the gap between education and employers' expectations is aimed at strengthening the relations between universities and potential employers.

[a] Cracow University of Economics, ORCID: 0000-0002-1141-2938.
[b] Cracow University of Economics, ORCID: 0000-0003-4760-2634.
[c] Cracow University of Economics, ORCID: 0000-0003-1411-1687.
[d] Cracow University of Economics, ORCID: 0000-0002-3804-2586.

The main aim of the chapter is to show the existence of a gap in the field of digital competencies of university of economics students.

The following methods were used in this chapter: descriptive statistics, the Shapiro-Wilk test, Friedman's Anova and Wilcoxon tests.

6.2. Literature review

There is a broad subject literature on competencies, including digital competencies. What is important, in the subject literature there is the distinction between competence and competency, which indicates that competence (plural – competences) is "a potential ability or a potential capability to function in a given situation", while competency (plural – competencies) means "the actual performance in a situation" (Stor and Kupczyk, 2015).

Moreover, in general, competence is observed as a specific ability to effectively perform specific actions in the subject area, including narrow subject knowledge, subject skills, ways of thinking, understanding responsibility for the actions (Raven, 1984). A comparable attitude is presented by Weinert (2001, p. 45), who describes competence as "a roughly specialized system of abilities, proficiencies, or skills that are necessary or sufficient to reach a specific goal". In turn, competency is defined as "the skills, knowledge, personal characteristics, and behaviors needed to effectively perform a role (work) in the organization and help the business meet its strategic objectives" (Stor and Kupczyk, 2015).

Furthermore, it is worth emphasizing that various elements of competencies are indicated in the subject literature. Nonetheless, the key components of competencies include knowledge, skills and attitudes, which – when used in the work process – are used to achieve the organization's goal (Oczkowska, Wiśniewska, and Lula, 2017).

The ambiguity in defining the concept of competencies determines the diversity of competency categories. The typologies of competencies described in the subject literature are not homogeneous, and are prepared on the basis of various criteria. The most frequently indicated competencies include: professional, non-professional, personal, social, objective, subjective, soft and hard (Frank and Stanszus, 2019; Hendijani and Sohrabi, 2019). Nowadays, in the conditions of Industry 4.0, digital competencies take on a particular significance.

In general, the digital competencies of a student define, describe or explain the ability to use information technology (IT) in a specific context (Rizza, 2014). It should be stressed that digital competencies include knowledge and skills in information and communication (ICT) management, as well as the appropriate use of information and collaborative work in a network (Sánchez, Lagunes, Torres, Judikis, and López, 2019).

In the subject literature there are three levels of digital competencies: (1) instrumental competencies at operational level, (2) transversal competencies at functional level, (3) meta-competencies at strategic level (Rizza, 2014). Moreover, digital competencies cover much more than technical skills. Table 6.1. demonstrates the seven areas of digital competencies.

Table 6.1. Areas of digital competencies

Areas	Characteristics
Information management	identify, locate, access, retrieve, store and organise information
Collaboration	link with others, participate in online networks & communities, interact constructively
Communication and sharing	communicate through online tools, taking into account privacy, safety and etiquette
Creation of content & knowledge	integrate and re-elaborate previous knowledge and content, construct new knowledge
Ethics & responsibility	behave in an ethical and responsible way, aware of legal framework
Evaluation & problem-solving	identify digital needs, solve problems through digital means, assess the information retrieved
Technical operations	use technology and media, perform tasks through digital tools

Source: (Ferrari, 2012, p. 4).

What is more, digital competencies include: (1) instrumental knowledge and the skills for tool and media usage, (2) advanced skills and knowledge for communication and collaboration, information management, learning and problem-solving, and meaningful participation, (3) attitudes towards strategic skill usage in intercultural, critical, creative, responsible and autonomous ways (Ala-Mutka, 2011).

For the purposes of the research, the following classification of digital competencies was adopted:

1. Information and data literacy.
2. Communication and collaboration.
3. Digital content edition.
4. The use of office software.
5. Programming.
6. Cyber security.
7. Hardware & e-commerce.

The classification is based on digcomp 2.0 with an adjustment made by the authors of this chapter.

6.3. Competency gap

Shaping and developing competences through properly prepared study programs is of key importance in the context of work efficiency achieved by graduates in the workplace. It also contributes to the minimization of the competency gap.

A competency gap is defined as an insufficient or inadequate level of employees' competences, necessary to meet the requirements of their current job (McGuinness and Ortiz, 2016). The American Society for Training and Development (ASTD) defines a competency gap as a significant difference between the current capabilities of an organization and the competences needed to achieve its goals (Singh and Sharma, 2014). The competency gap may potentially hinder the achievement of the planned level of the company's productivity, increase labor costs, and thus may adversely affect the company's profitability (McGuinness and Ortiz, 2016). The identification and analysis of the competency gap enables: grouping of assessments across the diagnosed types of competences, identifying areas requiring change and improvement, selection of effective instruments for competence development.

In the literature on the competency gap, three reasons for its occurrence on a global scale are identified (Alshare and Sewailem, 2018):

1) flaws in the academic system which does not educate graduates in basic interpersonal skills and Information and Communications Technology (ICT) that prepare them for quick adaptation to the work environment,
2) fast and continuous technological change,
3) declining industry placement or training opportunities that would enable new and existing employees to expand and absorb industry-specific skills.

The lack of cooperation between the business community and the academic community may only lead to the widening of the competency gap (Martz, Hughes, and Braun, 2017) and limiting the accessibility of graduates to the labor market. The necessity for universities and enterprises to cooperate in the creation of study programs has been mentioned some time ago (Kessels and Kwakman, 2007). The authors postulated the creation of the so-called knowledge networks that would integrate the know-how of business experts from the labor market with the innovation of university employees. Therefore, study programs should be constantly adapted to the requirements of the labor market in order to improve the employment prospects of graduates (Winkel, 2010). Bridging the gap between business education and the expectations of the business community will contribute to strengthening the relationship between universities and potential employers. In response to the identified competency needs reported by business organizations, universities recognize the need to reorient their own educational systems, study programs, apprenticeship programs, and the reforms underway contribute to shaping graduates' competences needed and required by the business community, and result in a higher level of the employability of business studies graduates (Gomes and Yasin, 2011).

Some authors however, wonder whether universities should really follow the demands of the labor market indiscriminately, or whether they should educate people capable of introducing changes and innovations to this market (Teichler, 1999). The problem of the short-sightedness of employers, who focus only on the competences needed in a given place and time, is also emphasized. Attention is also drawn to the fact that employers overestimate the role of social skills and personality rather than underestimating the knowledge base in specific fields.

6.4. Methodics

The main aim of this study was to examine and develop the competency gaps in the field of digital competencies of students at university of economics. To achieve this, some partial goals were introduced, namely:

1) describing the gap within digital competence in general,
2) describing and comparing the gaps within digital competences,
3) comparing the gap with the competency self-assessment.

The process of gathering data was conducted using the questionnaire created by the authors. It is based on a test, as the objective method of gathering data. The research participants had to first complete the self-assessment of each of the seven dimensions, and in the second part were asked to answer 35 questions, which gives five questions for each dimension of digital competencies. The questionnaire was introduced to the participants using the CAWI method.

It is important to state that the research was conducted in accordance with every ethical standard. The participants who volunteered to take part in the research had to agree to that. Neither e-mail addresses nor personal data were collected during the research. Each participant was informed of the possibility to withdraw from the research at any time without consequences. The questionnaire was based on a secured G-SUIT drive, accessed only by the researchers, in accordance with the Personal Data Protection Act.

The data verification was conducted using the quantitative method with the usage of descriptive statistics, the Shapiro-Wilk test, Friedman's Anova and Wilcoxon tests performed with the use of SPSS-27 software.

There are three variables that need to be clarified: the total competence gap, the competence gap, and the self-assessed digital competence gap. The total competence gap is computed as the difference between the maximum possible result in test (35) and the number of points acquired by the research participants. It is possible to state that the gap between 35 to 29 is very big, 28-21 as big, 21-14 as moderate, 13-7 as small and 6-1 as very small and 0 as non-existing. The competence gap in each competence is described as the difference between the maximum level (5) and the number of points acquired in the test from each of the seven digital competences. It is possible to describe a gap equal to 5 as very big, gap equal to 4 as big, gap equal to 3 as moderate, gap equal to 2 as small, gap equal to 1 as very small, and a gap equal to 0 as non-existing. The self-assessed competence gap was computed as the result between the maximum possible self-assessment (7) and the actual self-assessment.

The age of the participants was M = 20.37, SD = 2.184. The minimum age was 17 and maximum equal to 34. Other statistical characteristics of the research sample are presented in Table 6.2.

In total 185 people took part in the research, out of which 121 were men (65.4%) and 64 were women (34.6%). In regard to the education level, 183 were students (98.9%) and 2 were graduates (1.1%). Out of the 185 participants, 9 of them declared

Table 6.2. Statistical description of the research sample

Criteria		Sample	
		number	%
Sex	men	121	65.4
	women	64	34.6
	total	185	100.0
Education level	student	183	98.9
	graduate	2	1.1
	total	185	100.0
Proficiency	occasional	9	4.9
	regular	84	45.4
	advanced	76	41.1
	professional	16	8.6
	total	185	100
Course	economy	1	0.5
	IT	78	42
	business innovations	11	5.9
	management	92	49.6
	other	3	2.0
	total	185	100.0

Source: own study.

to be occasional users (4.9%), 84 regular users (45.4%), 76 were advanced users (41.1%) and 16 professional users (8.6%).

6.5. Results

The obtained results are presented in the context of partial goals.

Partial goal 1. Describing the gap within digital competence as total

The first partial goal was to describe the total digital competence gap. The results are presented in Table 6.3.

Table 6.3. Descriptive statistics of the total digital competence gap

Mean	Median	Mode	Std. deviation	Range	Minimum	Maximum	Percentiles		
							25	50	75
13.2541	13.00	15.00	5.15576	29.00	2.00	31.00	9.00	13.00	17.00

Source: own study.

The total gap mean (M) amounted to 13.25 with the standard deviation (SD) being 5.1558. Median was slightly lower than the mean (.2541), and there were several mode values, with the lowest at 15. It is interesting that the minimum gap was 2 and the maximum 31. None of the participants scored 100% in the test, with 25% of the best respondents had the competence gap on a level equal to or lower than 9, and one-fourth of the weakest respondents had the competence gap equal or higher than 17.

Partial goal 2. Describing and comparing the gaps within digital competences

The second partial goal was a development of the first. As a digital competence construct is a combination of seven different competences, it is mandatory to describe and develop each one separately. The description of competences is presented in Table 6.4.

Table 6.4. Descriptive statistics of the digital competences gap in detail

Specification		PROGRAM GAP	OFFICE GAP	INF GAP	MEDIA GAP	COMM GAP	HARD GAP	SECURITY GAP
Mean		3.0865	2.4000	2.2865	2.1405	1.6486	1.0270	.6595
Median		3.0000	2.0000	2.0000	2.0000	2.0000	1.0000	1.0000
Mode		3.00	3.00	2.00	2.00	1.00	.00	.00
Std. deviation		1.24808	1.07441	1.17449	1.46396	1.14721	1.17229	.78556
Range		5.00	5.00	5.00	5.00	5.00	5.00	5.00
Minimum		.00	.00	.00	.00	.00	.00	.00
Maximum		5.00	5.00	5.00	5.00	5.00	5.00	5.00
Percen-tiles	25	2.0000	2.0000	1.0000	1.0000	1.0000	.0000	.0000
	50	3.0000	2.0000	2.0000	2.0000	2.0000	1.0000	1.0000
	75	4.0000	3.0000	3.0000	3.0000	2.0000	2.0000	1.0000

Source: own study.

The greatest gap appeared within the programming competence M = 3.09, SD = 1.2481. Three competences had a gap over 2, namely office software competence M = 2.4, SD = 1.0744, information competence M = 2.29, SD = 1.1745, and multimedia competence M = 2.14, SD = 1.4640. The smallest gap M = .66, SD = .7856 was connected with the security competence. In each competence there were respondents with a competence gap of 0 as well as 5.

The Shapiro-Wilk normality test was performed in order to choose the most suitable statistical test to combine the gaps with one another. The results are presented in Table 6.5.

Based on the conducted test, none of the competence gaps had a normal distribution, so that the non-parametric test of Friedmans' ANOVA was performed in order to compare the gaps between them. The performed test $\chi^2_F(6) = 1004.275$, $p < .001$ demonstrated that there were differences between the competence gaps. In order to describe the differences in detail, the Wilcoxon test was performed for each of the 21 pairs. The test revealed that only three pairs were statistically insignificant as presented in Table 6.6.

Table 6.5. The results of normality testing

Specification	Kolmogorov-Smirnov			Shapiro-Wilk		
	statistic	df	sig.	statistic	df	sig.
INFORMATION_GAP	.189	370	.000	.927	370	.000
OFFICE_GAP	.179	370	.000	.924	370	.000
COMMUNICATION_GAP	.186	370	.000	.920	370	.000
MULTIMEDIA_GAP	.149	370	.000	.933	370	.000
PROGRAMMING_GAP	.197	370	.000	.902	370	.000
HARD_GAP	.229	370	.000	.840	370	.000
SECURITY_GAP	.292	370	.000	.774	370	.000

Source: own study.

Table 6.6. The Wilcoxon test results for statistically insignificant differences

Number	Competence 1	Competence 2	Wilcoxon Z score	Significance level
1	OFFICE_GAP	INFORMATION_GAP	−.576	.565
2	MULTIMEDIA_GAP	INFORMATION_GAP	−.921	.357
3	MULTIMEDIA_GAP	OFFICE_GAP	−1.380	.168

Source: own study.

In 18 out of the 21 pairs compared with the Wicoxon test, there was a statistically significant difference between them, and only within three pairs these requirements were not met. This justifies threating digital competence gaps within those three competences as equal. The graphic description is presented in Figure 6.1.

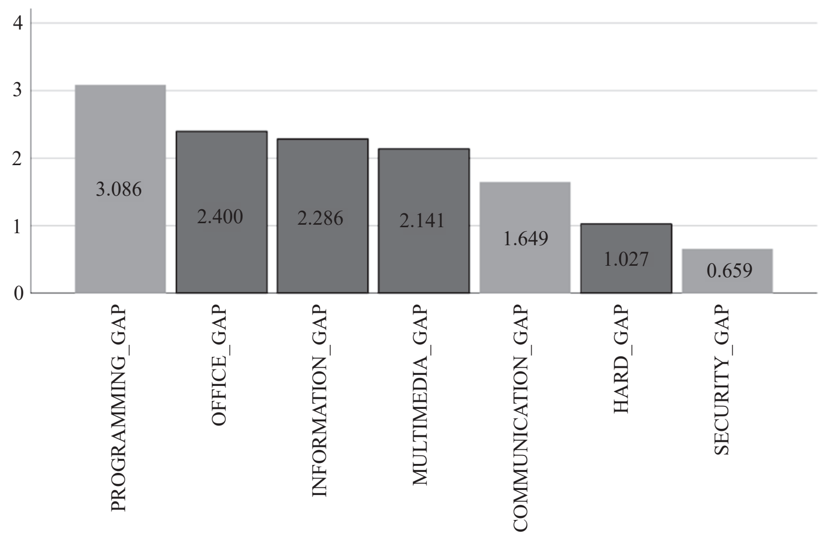

Figure 6.1. The gap classification

Source: own study.

The colors describe the groups of equal digital competence gaps. The greatest gap was recorded within programming competence. Later, the gaps of three competences were equal, i.e. office software, information and multimedia creation. The communication gap was significantly lower, the same as hardware competence. The smallest gap was revealed within the cyber security competence.

Partial goal 3. Compare the gap with the competency self-assessment

The third goal of the research was to compare the digital competence gap with the self-assessment of the gap with the actual digital competence gap. As the Shapiro-Wilk test proved that none of the variables have a normal distribution (for all p-value < .001) the Wilcoxon test was conducted to prove the difference between the self-assessed gap and actual gap. The comparison is shown in Table 6.7.

Table 6.7. Comparison of the self-assessed gap and actual digital competence gap

Competence	Self-assessed gap		Actual gap		Wilcoxon Z score	Significance
	mean	SD	mean	SD		
Information	1.6541	1.29350	2.2865	1.17449	−4.821	<.001
Office	2.4919	1.47486	2.4000	1.07441	−.472	.637
Communication	1.2595	1.34234	1.6486	1.14721	−3.116	.002
Multimedia	2.3459	1.49975	2.1405	1.46396	−1.302	.193
Programming	3.7243	1.94341	3.0865	1.24808	−4.667	<.001
Hardware	3.0541	1.64426	1.0270	1.17229	−10.159	<.001
Security	2.9568	1.57365	.6595	.78556	−10.766	<.001

Source: own study.

The research revealed that in five competences the actual digital competence gap was higher than the self-assessed one, These were: information Z = −4.821, p < .001, communication Z = 3.116, p = .002, programming Z = −4.667, p < .001, hardware Z = −10.159, p < .001 and security Z = −10.766, p < .001. Within two competences – office Z = −.472, p = .637 and multimedia Z = −1.302, p = .193.

6.6. Final conclusions

The discussion and conclusions are presented in accordance with the partial goals.

Partial goal 1. Describing the gap within digital competence as total

The obtained value of M = 13.25, SD = 5.1558 can be considered as moderate. As the concept of Industry 4.0 is becoming more and more important, there is no doubt that digital competencies are crucial in various areas such as physics (Foadi and Varghese, 2022), education and higher education (Cattaneo, Antonietti, and Rauseo, 2022; Nunez-Canal, de Obesso, and Perez-Riviero, 2022; Saltos-Rivas, Novoa-Hernandez, and Rodriguez, 2022), healthcare (Heponiemi et al., 2022), business and banking (Norveel, Gonzalez, and Presthus, 2022), and public services (Morte-Nadal and Esteban-Navarro, 2022). The existence of the digital competence gap is confirmed by various research teams (Findeisen and Wild, 2022; Morgan, Sibson, and Jackson, 2022; Oberlander, Beinicke, and Bipp, 2022; as well as Shohel et al., 2022; Siggiq and Scherer, 2019). There is also a gap in learning digital competences (Svensson, Wilk, and Aman, 2022). It appears that the digital competence gap is one of the most popular and important topics in scientific discussions, as confirmed by numerous research teams.

Partial goal 2. Describing and comparing the gaps within digital competences

Programming competence is to become the most important digital competence of the future (Kaplan, 2022). As various jobs are undergoing the automation process (Egana-delSol, Bustelo, Ripani, Soler, and Viollaz, 2022; Gallego and Kurer, 2022; Holzer, 2022), it is programming competence that will be needed in the near future. This moderate research gap should be of great interest in the upcoming research processes. Next three competence gaps, namely office, information and multimedia, are considered to be at an equal, but low level. The past two years forced students to move various aspects of their lives, such as social life, education and communication, to the online world, which affected the level of those competences and at the same time reduced the gap. Digital communication competence gap is at a low level, and the explanation is same with the above-mentioned competences. Hardware and security reasons are a daily-life reality of the students as they operate credit cards and various hardware devices which leaves the gaps of both digital competencies at a very low level.

Partial goal 3. Compare the gap with the competency self-assessment

There are differences in the assessment of the digital competence gaps within the five competences. In each case, the perceived gap is smaller than the actual gap. As in the previous research, it was shown that the COVID-19 pandemic improved the digital competences (Tyrańska, Wiśniewska, Szydło, and Koczyński, 2020), yet there is still a statistically significant difference between the assessment and the actual level. This proves that young people are still not fully aware of their potential and need to be educated in a more accurate way. The misunderstanding and incorrect assessment of their own digital competences could result in a difficult situation in the labor market.

As for the conclusions, the authors suggest that:

1) education within the digital competences is a crucial aspect and should be developed starting from an early age,

2) additional courses on programming should be implemented in every course of study,

3) the use of online learning methods should be continued as they develop the digital competences in a significant way – not just in theory but through practice.

The conducted research vas subject to various limitations, among which the most important were:

1) the research sample was limited only to Cracow University of Economics;
2) the research was conducted online without the full control over the respondents;
3) the research questionnaire was created by the researchers three years before and needs some improvement.

Due to the abovementioned limitations, future research actions are being planned, namely:

1) expanding the research sample onto other universities,
2) conducting the research offline,
3) improving the questionnaire so that it will become closer to the digcomp concept.

Part III

SELECTED SITUATIONAL FACTORS OF PROFESSIONAL DEVELOPMENT

Chapter 7

EMPLOYEE PROPENSITY TO PROFESSIONAL DEVELOPMENT AND THE ABILITY TO ACHIEVE PROFESSIONAL GOALS

Alena Ivanova[a]

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7.1. Introduction

For some time now the reality we function in is described as VUCA. The term is an acronym used for the first time in 1987 by American army strategists from the US Army War College, in order to describe a situation after the Cold War: Volatility, Uncertainty, Complexity and Ambiguity (Kaźmierczak, Ropski, Wasiuta, and Zakrzewski, 2021).

The current socio-economic conditions, including the COVID-19 pandemic, the development of modern technologies, and global conflicts, make the functioning and development of organizations dependent on the synergic interaction of many factors and processes (Tomaszuk, 2014). Therefore there is a need for the continuous adaptation of organizational plans, and the modification of the methods and means to achieve goals. The opinion is that the current and future positions of an organization on the labor market are undeniably becoming increasingly dependent on the quality of non-material assets; competences such as knowledge, skills, aptitude and attitude of employees (Juchnowicz, 2014, p. 42) play a significant role here. Employee competences provide abilities for effective company operation (Oleksyn, 2000, pp. 61-62). Moreover, highly competent persons who achieve goals quickly will increase their contribution in attaining organizational goals and allow development (desired quality change) (Armstrong, 2001, p. 248), very significant in the conditions of high competitiveness (Sienkiewicz, 2014, pp. 35-52).

The range and quality of change cause shift in attitudes and behavior of employees. On the one hand employees are required to strictly follow standards and instructions and on the other they must constantly think of ways to improve – even

[a] SGH Warsaw School of Economics, ORCID: 0000-0003-3082-1558.

if their tasks are highly mechanical and routine. What becomes the most important feature is the deliberate pursuit of the goal and ability to adjust to changing conditions (Juchnowicz, 2010, p. 30).

Attitudes are most important both for one's own actions as well as those of others. Attitudes trigger mechanisms responsible for beginning, directing and maintaining actions (Rzempała, 2017), as well as significantly influence achieved results. Attitudes can result from one's own experiences and beliefs, and can be received and modified under the influence of the environment (Wojciszke, 2003), i.e. also the organization (Stankiewicz, 2016, p. 143); on this basis one can forecast human behavior (Juchnowicz, 2014b, pp. 100-103).

Each of the characteristics in the VUCA reality constitutes a challenge for human resources management. In order to meet current and future challenges organizations not only have to engage in the creation of a working environment conducive to organizational and employee development, but also have the complex ability to identify employee attitudes such as the propensity for professional development, which has a significant influence on the quality of intellectual capital in difficult times (Juchnowicz, 2014b, p. 37).

This report is both theoretical and empirical and attempts to answer the following questions: What is employee propensity for professional development in the context of management sciences? Is the method of planning the realisation of goals diversified by characteristics such as gender, age, education, job, working experience, working time, and size of organization? Is there a connection between employee propensity for professional development, and employee ability to reach professional goals?

7.2. Definition of employee propensity for professional development

The definition of *propensity* is the point of interest of researchers of philosophy, economy, psychology and management, and also management and quality sciences. However, it is relatively rarely used and not unequivocally defined. An analysis of English, Polish and Russian literature suggests that propensity is often considered equivalent with some personal characteristics that are conducive to interest, striving and action in a defined direction characteristic for a given person (Hozer and Doszyń, 2004, p. 76). The definition of *propensity* is also used without explanation. Researchers only indicate its 'direction', i.e. define the direction of propensity as propensity to share knowledge (Walczak 2012), propensity to share success (Hozer and Doszyń, 2004, p. 102), and propensity to take risks (Tyszka and Domurat, 2004). Some authors explain it with the help of a description – propensity for negative behavior (unproductive) like theft at work, sabotage, being deliberately late for work or incorrectly carrying out tasks (Szostek, 2018, p. 129). Selected definitions of propensity are presented in Table 7.1.

Table 7.1. Definitions of propensity in various scientific disciplines

Definition	Author	Comments
Desire based on sensory perception	I. Kant	philosophy
Motive explaining human behaviors	A. Shaftesbury	philosophy
Constant characteristic of human nature	A. Smith	philosophy
Propensity for consumption is a functional dependency on a given level of income and consumption expenditure	J. Keynes	economics and finance
Propensity is targeting an attitude towards someone or something resulting in the increase of probability of particular actions	J. Hozer, M. Doszyń	economics and finance
Directing a person towards some kind of action	N. Leits	psychology
Tendency to engage in some actions, which reflects an active attitude towards those actions	B. Teplov	psychology
Attitude characterised by a tendency for positive or negative assessment of a given social or physical object	B. Wojciszke	psychology
Personal characteristic targeting a person's actions	G. Allport	psychology
One of the components of human temperament, which modifies behavior	J. Strelau	psychology
One of employee basic characteristics, which interacts with employee professional satisfaction, which is – in turn – a part of employee competence potential	M. Juchnowicz	management and quality sciences
Propensity to share knowledge resulting from mutual trust	A. Glińska-Neweś	management and quality sciences
Propensity to share knowledge is a person's attitude towards the transmission of knowledge	M. Stelmaszczyk	management and quality sciences
Propensity to take risks is relatively stable and general personal tendency to undertake or avoid risks	S. Sitkin and A. Pablo, S. Sitkin and L. Weingart	management and quality sciences
Propensity to trust – personal dimension. A very individualised component conditioning the readiness to trust or lack of trust towards other persons	L.V. Dyne, D. Vandewalle, T. Kostova, M.E. Latham and I.L. Cummings	management and quality sciences
Propensity to trust is an individual characteristic of every human and often a determinant of employee behavior in an organization	A. Jaklik, M. Łaguna	management and quality sciences
Propensity to enter into external relations is a measure of openness conducive to the transfer of knowledge to/from the environment	R. Stanisławski, R. Lisowska	management and quality sciences
Enterprise' s propensity for innovation is the implication that the enterprise wants to implement innovations	J. Bogdanienko	management and quality sciences

Source: own conclusions based on literature.

Summarizing all the above listed methods of understanding *propensity,* one can conclude that the difficulties with a clear and precise explanation of the definition do not only arise within the framework of various sciences, but also concern exponents of the same branches of knowledge, the reason being that the subject matter is complex and interdisciplinary. Therefore, *propensity* is defined depending on the branch of knowledge, research needs or level of analysis.

Propensity for professional development is one of human inclinations. Based on the analysis of literature on management, as well as other sciences, carried out for the purpose of this study *employee propensity for professional development* is defined as *employee attitude characterised by relatively stable and general will to undertake developmental measures.* Propensity plays significant roles in the process of professional development – a process aimed at the acquisition and update of knowledge, skills and developing psycho-physical characteristics, as well as social behavior essential in professional work both now and in the future, which enable to widen the meaning of work and to take on new roles (Oleksyn, 1997).

Acknowledging the propensity for professional development as a determined employee attitude means that three following components are present:

- cognitive – may include notions, assumptions, knowledge of the subject of attitude (Rogozińska-Pawełczyk, 2014, p. 31), e.g. awareness of one's skills (competences), knowledge of professional development needs, methods of developing competences;
- emotional – emotional reaction to the object of attitude (Fidelus, 2012, p. 97), e.g. feelings linked with professional development, including the acquisition of new skills, the improvement of competences;
- behavioral – indicates employee behavior towards the subject of attitude (Nowak, 1973, p. 31), e.g. activity conducive to professional development.

Employees share their knowledge, skills and experience for the realisation of the goals of the whole organization. In order to meet the challenges of the VUCA reality, modern day employees should constantly develop and increase their competences. Developmental activities (such as reading specialised literature, getting acquainted with information from specialised Internet portals etc.) can take place while carrying out work tasks, which increases the significance of the ability to identify and create employee attitudes towards professional development.

7.3. Methodological assumptions

The aim of the research was to diagnose the tendency for professional development and the ability to achieve the intended goals of employees in Poland.

The analyzed population comprised those employed irrespective of industry, job or performed tasks. The respondents were asked to assess to what extent they agree with the following statement: *after realising the current goal, I will be thinking of the next one.*

The following objectives were applied in the study: the goals presented to particular employees are the derivatives of goals of the whole organization.

In order to evaluate employee propensity to professional development, it was assumed that its level was characterised by the degree of acceptance of the statements allocated to the three components listed above (Table 7.2).

Table 7.2. Components of propensity for professional development

Component	Statement
Cognitive	I know which qualifications/ skills influence the effectiveness of my work
	I am aware which qualifications/ skills I should improve in order to reach my developmental goals
	I recognize when my professional knowledge becomes out of date
	I recognize the moment when a change of my method of carrying out tasks would improve their effectiveness
Behavioral	I have been actively searching for possibilities of improving my qualifications/ skills
	Improvement of qualifications/skills allows me to undertake more complicated tasks
	I am searching for the most effective methods of performing tasks while working
	I keep improving my qualifications/ skills despite the related effort
Emotional	Improving my qualifications/skills is a source of joy for me
	Improving my qualifications/skills gives me satisfaction
	The perspective possibilities to improve my qualifications/ skills make me enthusiastic
	The effects of improving my qualifications/ skills make me proud

Source: own study.

The respondents were asked to address the above statements (Table 7.2) based on the 5-level Likert scale, with 1 standing for definitely not, 2 – rather no, 3 – neither no nor yes, 4 – rather yes, 5 – definitely yes. The sum of scores given by the respondents to each of the 12 statements created a result value called the indicator of the propensity for professional development. The suggested method was the author's proposal for such a diagnosis. The analysis of the credibility of the created indicator was based on the empirical data. The calculations were carried out in the IBM SPSS 27 program. The conducted analyzes proved that the internal cohesion of the construct defined by α Cronbach was high: α Cronbach index in the pilot study amounted to 0.864[1] and 0.908 in the final study. The results also confirm the appropriate selection of the statements in the development of the indicator; the Kaiser-Mayera-Olkina (KMO) measure varied between 0.5-1 (0.836 and 0.922 in the pilot and final studies, respectively).

[1] The pilot study was carried out from 24 October to 10 November 2020.

7.4. The characteristics of the sample

The presented results of the research are a part of a larger scientific study financed by the National Science Centre (project no. 2018/31/N/HS4/01212, *Wpływ pozytywnych zachowań pracowników w organizacji na ich skłonność do rozwoju zawodowego* – The Influence of Positive Employee Behavior in the Organization on Their Propensity for Professional Development).

The research was carried out from 17 to 22 March 2021 using the CAWI method among 600 persons (303 – 50.5% women, and 297 – 49.5% men). The respondents were persons working in Poland, carrying out tasks for their own professional development, or who had realised such tasks within 12 months. The research sample was chosen randomly and constructed according to the age structure presented by the Central Statistical Office (GUS) in *Kształcenie dorosłych w 2016 roku* (Adult Education in 2016). The data on the number and structure of the sample are presented in Table 7.3.

Table 7.3. Number and structure of the analyzed sample

Age	Women		Men		Total
	N	%	*N*	%	
18-24	34	11.2	35	11.8	69
25-29	30	9.9	31	10.4	61
30-34	34	11.2	36	12.1	70
35-39	33	10.9	34	11.4	67
40-44	29	9.6	30	10.1	59
45-49	25	8.3	26	8.8	51
50-54	27	8.9	26	8.8	53
55-59	32	10.6	30	10.1	62
60-64	32	10.6	28	9.4	60
65-69	27	8.9	21	7.1	48
Total	303	100.0	297	100.0	600

Source: own calculations.

The majority (63.3%) of the analyzed persons had a higher education, around 1/3 of the respondents had a secondary school education, and those with a basic vocational education accounted for 5,8%. The analyzed respondents varied according to the size of company they were employed in. The greatest number of the respondents were those employed in small and medium enterprises (30% and 32.2%, respectively). The percentage of staff employed in big companies was 23%, and in micro companies – 14.7%. The most prevalent group, according to the kind of job, was constituted by non-managerial staff (61.7%). Managerial staff accounted for 32.2%, and 6% of the respondents declared being the owners of companies. The most numerous group according to professional experience (40%) consisted of persons employed for 1-5 years in their current company, whereas the least represented group (11.3%) consisted of persons with a work experience of one year; 63.3% declared being employed in the private sector, 33.3% in the public sector, and 3.3% in NGOs.

7.5. Empirical research findings

The respondents were asked to address the statement concerning the method of planning the realisation of reaching goals. The comparison of frequency of choice of their answers indicates that both genders usually chose affirmative answers, i.e. *rather yes* and *definitely yes.* The sum of affirmative answers among women amounted to 85.5% vs 80.1% among men. The percentage of women who chose answers such as *neither yes nor no* was 4.7% lower than in the case of men (13.5% vs 18.2%). Detailed distribution of answers is presented in Figure 7.1.

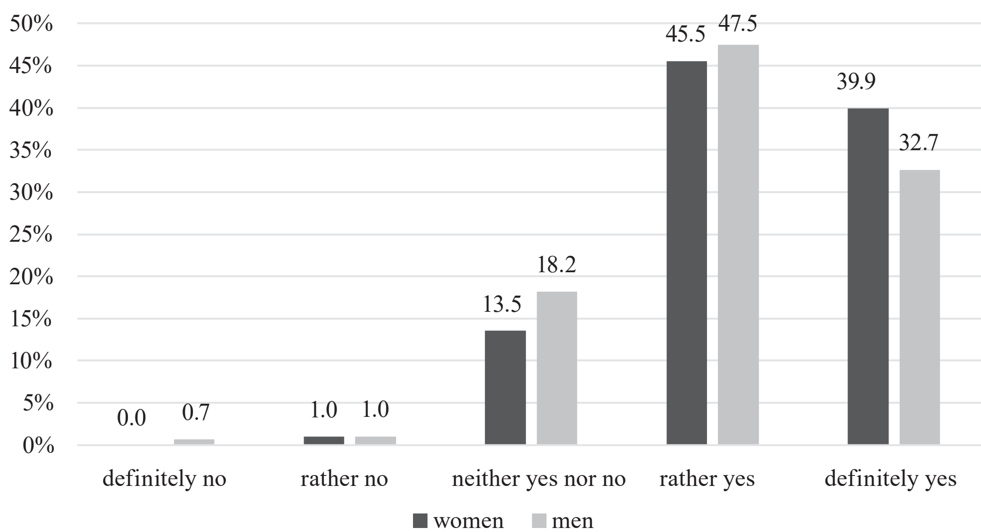

Figure 7.1. Percentage distribution of answers according to gender

Source: own calculations.

The analysis of the answers according to respondents' age suggests that a majority gave positive answers with *rather yes* indicated by 46.5% and *definitely yes* by 36.6%. The greatest percentage of positive answers was among persons aged 55-59 (93.5%) and 60-64 (91.7%). Negative answers, i.e. *rather not* and *definitely not* were given by the youngest and oldest respondents (18-24 (4.3%) and 50-54 (5.7%) as well as by the following age groups: 30-34 (1.4%) and 35-39 (1.5%) – Figure 7.2.

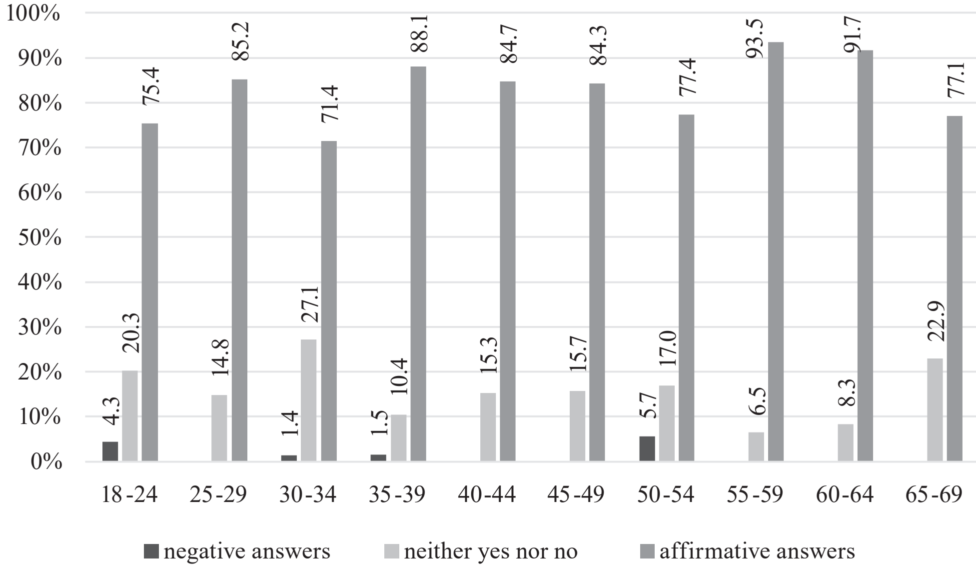

Figure 7.2. Percentage distribution of answers according to age

Source: own calculations.

The most numerous group of respondents (323 persons) who chose positive answers had a higher education. The greatest percentage of *definitely yes* answers (68.8%) was recorded in the group who declared completing PhD studies (Figure 7.3).

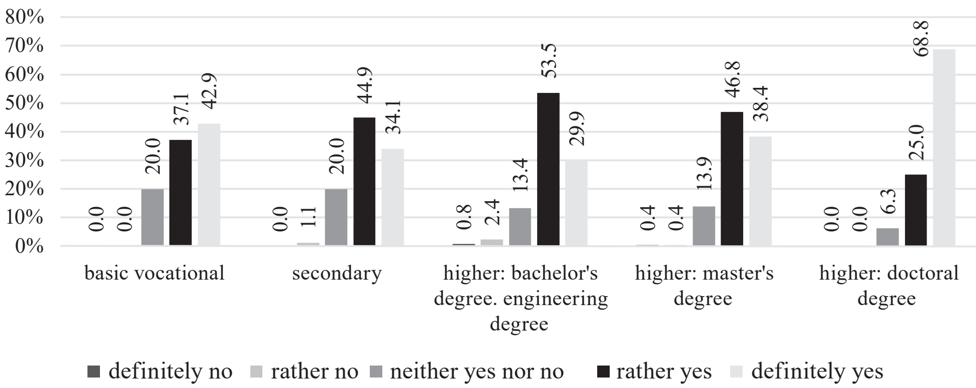

Figure 7.3. Percentage distribution of answers according to education

Source: own calculations.

A comparative analysis of the answers according to industry and working experience in current place of employment did not show a clear diversification (Figures 7.4 and 7.5).

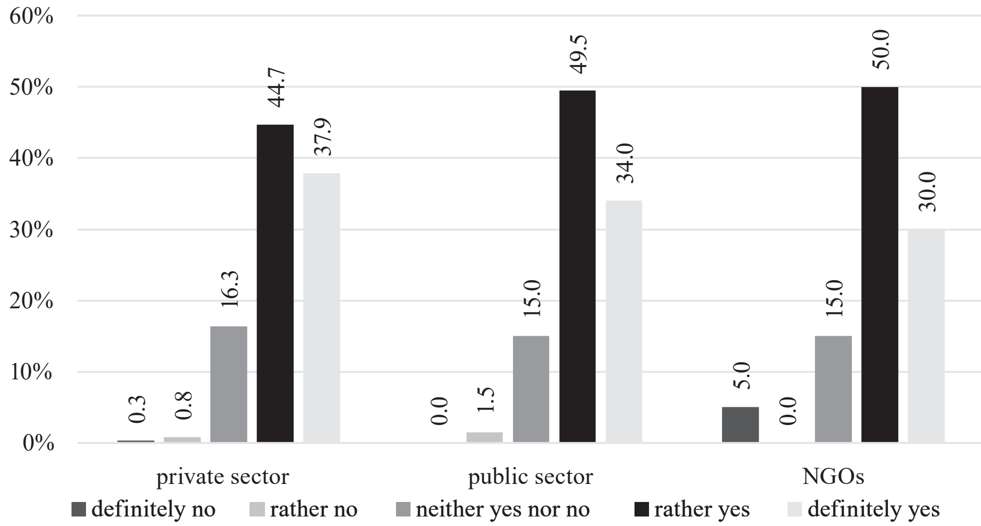

Figure 7.4. Percentage distribution of respondents according to industry

Source: own calculations.

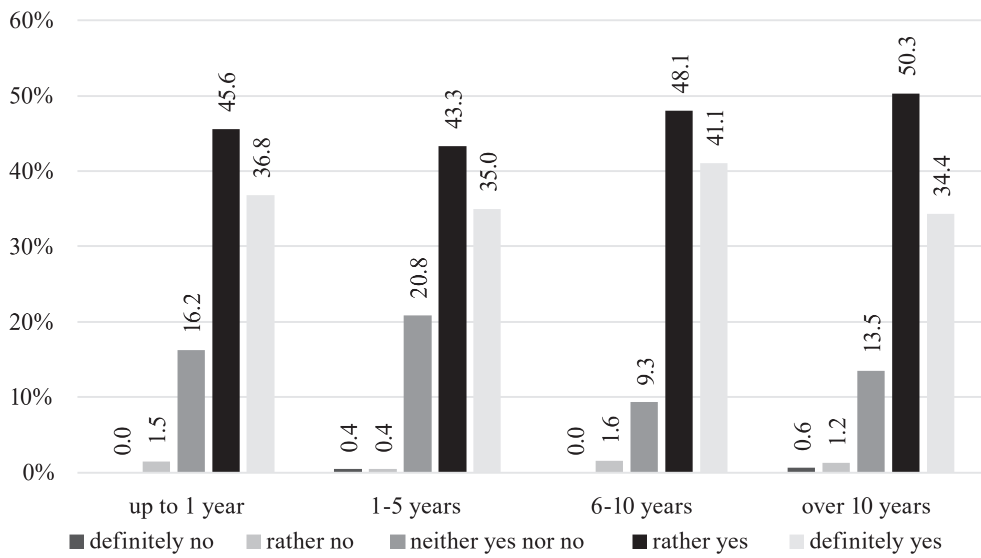

Figure 7.5. Percentage distribution of answers according to working experience

Source: own calculations.

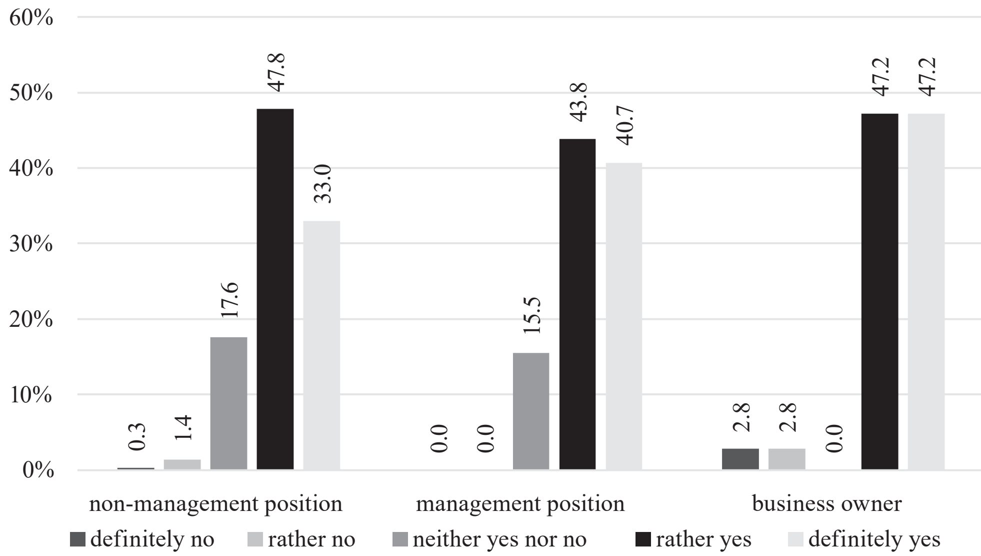

Figure 7.6. Percentage distribution of answers according to job

Source: own calculations.

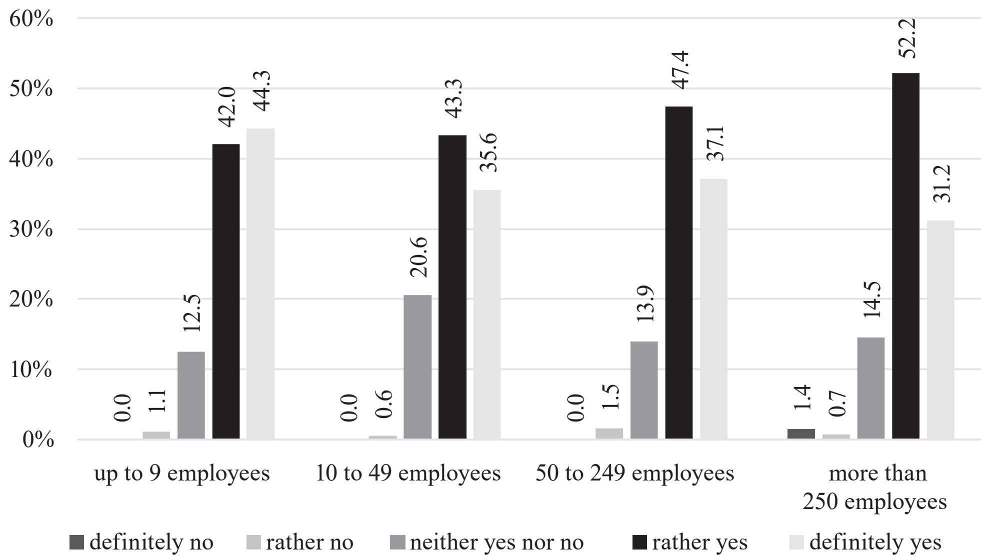

Figure 7.7. Percentage distribution of answers according to the size of company

Source: own calculations.

When comparing the frequency of the answers according to job, it is noticeable that the highest percentage of *definitely yes* answers can be found among the owners of companies (47.2%). Moreover, those respondents were more decisive as far as the choice of the kind of answers was concerned – none of them chose the *neither yes nor no* answer (Figure 7.6).

Despite the fact that most of the respondents gave positive answers (*rather yes* and *definitely yes),* the greatest percentage (44.3%) of the 'definitely convinced' respondents was found in small companies, and the lowest (31.4%) in big enterprises (Figure 7.7).

As far as the current analyzes carried out within the framework of the descriptive statistics allowed for the identification of diversification of answers according to the respondents' particulars, the study also attempted to define whether there was a correlation between employee propensity for professional development and their ability to achieve goals at work. Spearman's rank correlation coefficient was used to analyze the relations between the variables. Table 7.4 presents the results of that test.

Table 7.4. Results of the correlation test for employee propensity for professional development with the ability to reach goals

Spearman's rho	.492**
N	600

** Significant correlation amounting to 0.01 (bilaterally).

Source: own calculations.

The results indicate that there is a relation between the analyzed variables. The correlation between employee propensity for professional development and the ability to achieve goals at work can be assessed as moderate because Spearman's rho varied between 0.4-0.75[2].

7.6. Final conclusions

The results of literature analysis and empirical studies allowed to answer the research questions. From the analysis of Polish, English and Russian publications on philosophy, economics, psychology and management sciences, and on the quality of employee propensity for professional development and human resources management, one can conclude that the definition of *propensity* is one of scientific constructs, difficult to define unambiguously and providing a clear understanding of the definition. The propensity for professional development is one of the human

[2] It is assumed that the value of correlation ranging from 0 to 0.4 indicated a weak correlation, 0.4 to 0.7 a relatively strong correlation, and 0.7 to 0.9 indicated quite a strong correlation, whilst t $r > 0.9$ – a very strong correlation.

tendencies conducive to personal activity aimed at achieving, expanding knowledge and professional skills. Based on current scientific achievements, the definition of *employee propensity for professional development* is given as follows: it is the *employee's attitude characterised by a relatively stable, general will to undertake developmental tasks.*

The results of this analysis allow to conclude that the age, gender, education, job and the size of the company, differentiate the respondents' answers to the question concerning planning the realisation of goals. However, the differentiation is not so clearly visible as far as working experience and industry are concerned.

In conclusion, women more than men, are prone to thinking of following a goal after realising their current one: 85.5% of women selected positive answers, including 39.9% of *definitely yes* answers (80.1% and 32.7% in the case of men).

The largest group of persons who do not set following targets was found among two age groups: 50-54 (5.7%) and 18-14 (4.3%), whereas people aged 55-59 (93.5%) and 60-64 (91.7%) most often plan their goals one step ahead. The most numerous group of persons who could not decide whether to plan the realisation of goals comprised those aged 30-34 (27.1%).

Employees with a PhD education agreed with the statement *I'm thinking of a new goal after realising the current one* more often than other persons (68.6%). The percentage amounted to 29,9% among persons with a BA education, and 42.9% in the case of persons with a lower secondary schooling.

A total of 94.4% of company owners plan their professional goals (including 47.2% of *definitely yes* answers) vs 84.5% (including 40.7%) of managers vs (including 33.0%) of non-managerial staff.

Despite the fact that the majority of the respondents (82.8%) declared they are thinking of planning the realisation of goals, those working for companies employing up to 9 persons gave the biggest percentage of positive answers (86.4%). Moreover, those employed in micro companies chose *definitely yes* answer most often (44.3% vs 31.2% of persons employed in companies with more than 250 employees vs 35.6% and 37.1% of small and medium companies).

The Spearman's rho = 0.492 indicated a positive relation between employee propensity for professional development and their capability to achieve professional goals. Assuming that the correlation between the variables was statistically important, and taking into consideration the direction of the correlation, it is clear that the higher employee propensity for professional development, the better his/ her ability to plan the realisation of goals.

Accounting for all the presented considerations, it can be confirmed that the goal of the study was reached, with the resultant definition of *employee propensity for professional development* in the context of management and quality sciences. Moreover, the study proposed the definition of how the respondents' particulars diversified the method of planning the realisation of goals, and identified a relation between employee propensity for professional development and their ability to achieve goals.

From the perspective of human resources management, this is significant information prompting consideration of the planning of developmental programs and increasing the effectiveness of decisions linked with investing in the professional development of employees. The diagnosis of employee propensity for professional development will allow to distinguish employees willing to develop their competences, which will then facilitate increasing the definition of developmental resources of the organization. At the same time, increasing the level of employee propensity for professional development through investing in their development will be conducive to increasing employee skills for reaching professional as well as organizational goals.

Chapter 8

THE CONCEPT OF MEASURING THE EFFICIENCY OF THE VIRTUAL ONBOARDING PROCESS IN THE IT SECTOR

Tomasz Kawka[a], **Piotr Wróbel**[b]

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8.1. Introduction

The key factor, which is the culmination of the successful acquisition of human capital for the organization, is the introduction of the selected new applicant to work. This is a phenomenon that in today's ontological dimension, but also resulting from the practice of the Anglo-Saxon corporate organizational culture, is equated with the concept of onboarding (Fagerholm, Guinea, Borenstein, and Münch, 2014, pp. 54-61). The adaptation of a new employee to the structure of the organization, i.e. the stage that finalizes the selection – consists in introducing him or her to work. It is a process of introducing a selected candidate after the recruitment and selection process into the roles of an employee expected by the employer, inscribed in the process and work environment in order to ensure efficient organizational and interpersonal functioning in a given employee community (Kawka, 2010). Today's turbulent changes and significant diffusion of the conditions for the functioning of the organization, as well as the redefinition of various organizational spaces, often make it necessary to ask an important question of whether the employee introduced to the organization is properly integrated, or is not necessarily a permanent employee, but rather a part of the contemporary labor market environment based on flexible forms of employment. Over two years of the global pandemic, creating the need for social isolation in organizations and thus a radical change in the role and importance of remote work, has accelerated the development of network and virtual technologies in the context of disseminating the digital environment and professional relations. There are additional challenges, limitations, and difficulties in quickly and efficiently adopting a new organizational identity for an employee who starts entering the

[a] University of Gdańsk, Faculty of Management, ORCID: 0000-0003-2274-5399.
[b] University of Gdańsk, Faculty of Management, ORCID: 0000-0002-4469-5874.

organization online in relation to his/her new workplace. The new workplace appears as another application on the screen of a computer or smartphone (Harpelund, Nielsen, and Hjoberg, 2019, pp. 9-27; Wróbel, 2021). In addition, many years before the outbreak of the pandemic, it was already observed that the share of employees making up the core of full-time staff permanently associated with the organization was decreasing, turning into the so-called category of ‘cloud management’, job-hoppers, or gig-workers – and this is especially applicable in the employment of knowledge workers in the IT industry (Friedman, 2014, pp. 171-188; Kuhn and Galloway, 2019, pp. 186-19). One of the industries defined in this way by the practice of HRM processes, is the IT services sector, especially in the time of the Covid-19 pandemic (Georgiadou, Mouzakitis, and Askounis, 2021; Mahesh and Kumar, 2020, p. 640). It is therefore worth asking an important research question here, which results from the currently perceived specificity of the asymmetry of HR practices in the IT industry based on digitalized relations creating virtual work environments. Has there been a shift of emphasis in the implementation, adaptation and integration of new employees to organizational structures in the IT services sector as a result of the pandemic conditions, and to what extent is onboarding in such a configuration rational and effective for the employer and the employee? In this chapter, the authors set themselves an ambitious goal – to start a methodological discussion on whether and how to measure the defined phenomenon, the problem of assessing the efficiency of virtualized onboarding in the case of a specific organizational culture of companies in the IT industry (Buchan and Yang, 2017, pp. 12-23).

8.2. The contemporary perception of onboarding

As a consequence of the trends outlined in the introduction, ie. the changing structure of human capital in IT industry organizations – from traditional employees, through a group of knowledge nomads, to individuals who are ethnically and culturally unrelated to the parent organization and activate their activity in the case of specific projects and ventures. The classic structure of the ICT services labor market is also changing, where employees constitute a specific group of knowledge workers, most often from Generation Y, in relation to whom the previously used forms and methods of HRM should be reevaluated (Grobelny, 2015, pp. 47-60; Hetig, 2019, pp. 107-114; Jakubowski and Masiukiewicz, 2018, pp. 42-59). The result of such redefining of the configuration of employee roles is a reorientation from material resources to non-material resources, where the role of human and intellectual capital as a strategic asset of the organization, constituting an essential component of knowledge, is increasing (Kianto, Saenz, and Aramburu, 2017, pp. 11-20). The process of changes and adaptation to new conditions is a difficult and complex process. Therefore, it is in the best interest of the organization that this stage is skillfully and efficiently achieved.

Onboarding can be understood as the process of helping new employees to smoothly adapt to the social and organizational aspects of their new job (Bauer, 2013, p. 1), namely introducing inexperienced employees to a new job, familiarizing them with the goals of the organization, its values, rules, obligations, procedures and socializing the new employee in the organizational culture (Chillakuri, 2020, p. 3). The introduction to the work place includes formal and informal practices, programs and policies introduced or applied by an organization to facilitate adaptation in a complex, unknown work environment (Klein and Polin, 2012, p. 268). Onboarding manifests itself in processes that take the form of both formal and informal activities of various units in the organization (Bauer and Erdogan, 2011; Elset, 2018; Klein and Polin, 2012). Superiors, mentors, and co-workers all play a key role here, and today, considering the online mode as the basis for introducing to work, these are more and more often digital sources, network resources, dedicated websites, blogs, social media, or bots based on AI algorithms (Pandey, 2020, pp. 719-730; Wrzalik, Niedbał, and Sokołowski, 2018, pp. 1012-1023). However, one cannot forget about an important social aspect of implementation, which is the wide range of actions, reactions and attitudes in the field of non-codified and informal practices resulting from people's reactions that are unplanned, spontaneous, emotional or accidental (Bauer, 2013). Regardless of whether it will be a remote (virtual) or traditional (in analog/workplace) mode, the actions taken by this set of entities will include: introducing the candidate by the line manager in his/her department, visiting the top management, handing-in the appropriate a document or a set of data and information about the organization, a virtual tour around the company, familiarization with its activities, and appointing a person responsible (coach/bot) for the adaptation process of the given employee. The basic tools that can support the introduction to work are: company websites, videos shared on the web, and social media resources (FB, Instagram, and Tik-Tok apps). In addition, there can be dedicated demonstrations and simulations at the workplace (on-the-job training), various forms of training for work, mentoring, integration trips, educational tasks, informal meetings, thematic training, chats with fellow employees, all kinds of publications, peer care, and special introductory training. In this context it can be indicated that introduction to work has several basic functions: adaptive, motivational, social and organizational (Kawka, 2010). Adaptive function is about using the employee's potential as early as possible, that is, from the first day of work in a given position. The motivational nature of introduction to work is based on quick, diligent familiarization of the employee with the work environment. This influences the positive perception of the new workplace and employee engagement. The social nature of the introduction results from the fact that the employee must get to know colleagues, learn about the elements of the company's organizational culture, and the rules of coexistence. The employee should be introduced informally to the organizational community. The organizational significance is based on the fact that the employee has to learn about his/her work tools, the organizational structure, and learn about the document flow scheme. It is adapting to the content and conditions of work, learning about basic procedures, tasks, duties, work relations, etc. (Moe, Stray, and Goplen, 2020). A fundamental question can be asked here: does the remote onboarding process enable the achievement of all the assumed functions at a level similar to that of traditional onboarding in pre-pandemic times? It is also necessary to find out whether there have been changes in the subjective scope of introduction to work by implementing online tools and processes such as Internet sources and artificial intelligence algorithms.

8.3. The essence and challenges of virtual onboarding in IT

The problem of adaptation of newly hired employees gained a new dimension in many IT companies during the COVID-19 pandemic. With the widespread implementation of remote work (Bulldogjob, 2021), the on-boarding processes had to be adapted to the new work organization. While this was not a new challenge in companies using virtual teams, many organizations also in the IT sector had to learn a new approach to on-boarding processes. Already in the first months of the pandemic, it turned out that apart from many new opportunities, remote work is associated with specific limitations (Wróbel, 2021, p. 59). These limitations affect the remote employees on-boarding process, in particular, the achievement of goals related to the introduction to duties at the workplace, building social relations and assimilating the organizational culture.

1. The limitations related to remote training and coaching, in particular with regard to the development of soft skills, are highlighted in previous studies (Fisher and Fisher, 2001). Moreover (Golden and Fromen, 2011, pp. 1451-1475), when analyzing the relation between remote managers and subordinates, indicate that such employees were less likely to receive feedback from their superiors compared to colleagues working in the office. As a result, they had fewer career opportunities, their job satisfaction was lower and the likelihood of leaving their jobs was higher. An important element of the introduction to new duties at work is the acquisition of tacit knowledge. Meanwhile, sharing this category of knowledge by colleagues remotely is difficult and often more time-consuming.

2. Replacing face-to-face contacts between employees with indirect, electronic contacts is not conducive to building relations, in particular by new employees. Hemphill and Begel (2011, p. 2), while examining the on-boarding processes in an international IT company, concluded that the key barriers in this process were the consequences of using electronic means of communication, namely the phenomenon of employees' invisibility for other people in the organization, and limiting informal communication between staff. Meanwhile, informal interactions are key to building trust in organizations.

3. One of the onboarding goals is the adoption by new employees of norms and values that make up the culture of the organization, which in its essence should be a bond between people. In a traditional office, culture is transmitted through material

artifacts, direct relationships with superiors and colleagues, rituals, etc. Meanwhile, remote work, limiting face-to-face contacts between employees and the possibility of mutual observation at work, makes it difficult to transfer organizational culture (Gainey, Kelley, and Hill, 1999, p. 9).

Kostner (1999) pointed out that many remote workers, due to the virtual nature of the relations in the workplace, do not feel emotionally attached to the employer, which may result in low employee loyalty. It becomes much easier to build attachment to the immediate superior and the team than to the entire organization. A specific barrier to the adaptation processes occurring in many dispersed IT teams is the diversity of national cultures. Different time zones, which make it difficult to maintain synchronous communication between employees, become an additional factor.

To sum up, the specificity of remote work makes it difficult to achieve both the organizational and social goals of the on-boarding process in IT companies. As a result, it is necessary to plan a longer time for the new employee to become mature at work. Virtual onboarding may also lead to low employee identification with the new organization (Gruman and Saks, 2018) and higher turnover in the group of new employees. Such effects were observed in IT companies using remote work before the pandemic. For example, the increased level of rotation was indicated by Smite and Van Solingen (2015, pp. 60-70) in studies of software companies. Moreover, one of the effects of the Covid-19 pandemic is declining loyalty and the growing willingness of employees from various industries to change employers – a phenomenon known as Great Resignation. In the context of these factors and the situation on the job market of IT specialists, the importance of the proper implementation of the onboarding process is growing.

The limitations related to the virtual form of on-boarding presented above encourage IT companies to look for diverse solutions. Organizations use many tools and techniques, e.g. e-learning, instructional videos, working in pairs, buddies, mentoring, periodic meetings in various groups. The adaptation process involves a wide range of employees – superiors, co-workers from different units, employees of the HR unit, members of senior management. As a result, organizations put a lot of energy and initiative into the adaptation process and involve a large group of their employees. At the same time, effective virtual onboarding requires from the new employee much more initiative and activity compared to the process taking place in the office. Moe et al. (Moe, Stray, and Goplen, 2020) indicated the possibility of combining traditional onboarding methods with virtual methods. The analyzed IT company used both traditional meetings and training, as well as videoconferences and instant messaging, whereas Graber (2015) emphasized that some companies, when employing remote staff, introduce for them the obligation to work in the office in the first period of their employment, and only after some time allow the use of full remote work. In such a model it is possible to use a more traditional approach to employee onboarding.

To illustrate the significance of the virtual on-boarding challenge, below there is a short description and interpretation of the results of the research that the authors conducted during the Covid-19 pandemic. This formed the basis of the proposal for further research in this area, proposing an original methodology for measuring the efficiency of the virtual onboarding process in the IT sector.

8.4. The effects of remote work in the IT sector: a case study

The aim of the presented case study was to identify the effects of using remote work in the IT sector, and the activities undertaken by companies in response to the challenges arising from the remote work in the context of HR policy. The authors used the multiple case study method. The sample was non-representative, consisting of seven IT companies. The criteria for selecting the surveyed organizations were as follows:

- the entity is in the IT sector or is the IT department of a large enterprise;
- the company operates in Poland;
- the minimum number of IT employees is 20;
- the entity engaged in remote work during the Covid-19 pandemic.

The data were collected from a variety of companies, among which software houses, ERP system integrators, e-commerce and firms providing IT services to parent companies. The differences between these companies constitute a strength of this study, and their variation reflects a wide range of conditions that influence on-boarding processes (Table 8.1)

Table 8.1. Description of the research sample

Code	Scope of activities	Number of IT employees	Market	Respondent
A	E-commerce company	30	Poland	CEO
B	IT subsidiary that supports global production holding	300	Global	CEO
C	IT department in a production company	20	Global	IT Department Director
D	Software house	200	Global	Project Manager
E	IT company implementing ERP systems	50	Poland	Implementation Department Director
F	Software house	400	Europe	Human Capital Director
G	IT subsidiary that supports global conglomerate	> 1000	Global	Team Leader

Source: own study.

In each of the surveyed organizations, at least one semi-structured in-depth interview was conducted with members of company management or HR units.

Scenario-based interviews were conducted by phone or by videoconference between March and August 2021, one year after the announcement of the Covid-19 pandemic in Poland. In some companies, organizational documentation was an additional source of information.

The surveyed companies used remote work in very different ways before the pandemic. These approaches can be divided into two groups:

- in five companies (A, B, C, E, F), remote work was not an option or was used ocasionally (a maximum of a few days a month and/or limited to a small group of people);
- two companies (D and G) deployed extensive remote work. In company D, employees worked from home for approximately 80%-90% of the time. Company G offered two different approaches to remote work; in some departments remote work was used two days a week (G1), and in one department employees were fully remote (G2).

In the first months of the pandemic, all companies asked their employees to engage in full-time remote work. Later, workplace organization models began to evolve. After about a year of the pandemic, most companies (five out of the seven) began to gradually reduce the share of remote work and persuade employees to partially return to their offices. Nevertheless, employees of all companies still performed more duties at home than in the office (estimated amount of work from home accounted for 60% to 100% of working time). It is worth noting that the pace of return of employees to offices was restricted by limits on the number of employees that could work simultaneously in the office introduced by some employers (companies B, E, F). What could be considered the most important conclusion from the presented case study, is that the surveyed entities in the IT sector generate a multiplicity and variety of forms used to shape the HRM strategy and workplace organization. Some employees used full remote work, but also quite a lot of partial, hybrid formulas. Among the surveyed companies, a number of interesting effects (in the opinion of the surveyed managers) were observed regarding the use of remote work, three of which are related to the subject of this chapter (Table 8.2). Below the authors described and discussed the main conclusions resulting from the conducted case studies related to onboarding processes.

Table 8.2. The remote work effects related to Human Capital Management in the surveyed companies

The effect related to Human Capital Management	Assessment	Company						
		A	B	C	D	E	F	G
Acquiring employees from new labor markets	Positive	√	√		√		√	√
Departure of employees to companies located abroad	Negative		√		√		√	
Difficulties in onboarding new employees	Negative	√	√	√	√	√	√	√

Source: own study.

a. Acquiring employees from new labor markets

The introduction of remote work increased the possibilities of acquiring new employees. Among the respondents, four companies (A, B, F, and G) extended the geographical scope of recruitment to other local labor markets in Poland, and one company (D) was also looking for employees in other countries, including non--European ones.

b. Departure of employees to companies located abroad

According to some respondents, working remotely five days a week brings problems of loosening interpersonal ties and weakening existing organizational cultures. As a result, a decrease in employees' loyalty to the company was noticed (companies A, C, F, G). Among some companies it was noted that their employees received job offers, in particular from Western European employers (companies B, D, F). In some cases, this led to employee departures.

c. Difficulties in onboarding new employees

During the pandemic, all the surveyed companies employed new staff. The onboarding of new remote employees was a challenge primarily for line managers. The vast majority of these activities took place remotely. Despite the great effort put in by the organizations to introduce new employees, this process was much slower than before (companies A, B, C, D, E, F, G). The new staff did not have an opportunity to observe other employees or listen to their conversations, which so far had been an important factor in the diffusion of tacit knowledge and the development of new employees. Moreover, introducing a new employee to work during the pandemic focused on formal and legal issues and preparation for work, while little attention was paid to soft issues which make the employee feel part of the team. As a result, some of the new staff felt uncomfortable with this way of entering the new organization. Getting to know duties, colleagues and the company itself was much more difficult than before (companies E, and G). Among the surveyed organizations, there were cases of new employees resigning for this very reason during the first weeks of their employment (companies C, and G).

The presented conclusions are a significant justification for the attempt to deepen the conducted research towards measuring the efficiency of the virtual onboarding process. This is an approach that, as a key HRM practice, has not yet been properly diagnosed yet. In an attempt to close this research gap, at least partially, the authors proposed a quantitative model of measuring the efficiency of the virtual onboarding process in the IT sector.

8.5. Three-dimensional evaluation model of the onboarding process

A synthetic measure for assessing the level of onboarding process implementation is the indicator showing the product of dimensions in specific relative point values, i.e.

the conventional "volume of the polygon" drawn by three interdependent axes X, Y and Z. contractual point units:

$$V_{ONBOARDING} = \boldsymbol{X} \times \boldsymbol{Y} \times \boldsymbol{Z},$$

where: V – contractual (relative) level of efficiency in achieving the goals and quality of the ONBOARDING process; *X* – contractual (relative) level of the functional dimension, indicates the assessment of the fulfillment of the intended goals and social and organizational functions of the process in the opinion of the employees deployed to work, as well as managers and other stakeholders; *Y* – contractual (relative) level of the institutional dimension, what is the degree of involvement and quality of activity of relevant entities in the organization (managerial, HR, mentors, coaches, external companies, advisers); *Z* – conventional (relative) level of a tool dimension, what is the assessment of the introduced employees, managers and other stakeholders, of the tools and techniques used during onboarding.

The presented three-dimensional evaluation model of the onboarding process is based on the assumption of a simultaneous analysis in these three complementary and interpenetrating dimensions which, in graphic terms, create a three-dimensional space of the quality and effects of the onboarding process. This is a contractual area of the course of action that implements the goals of onboarding (Figure 8.1).

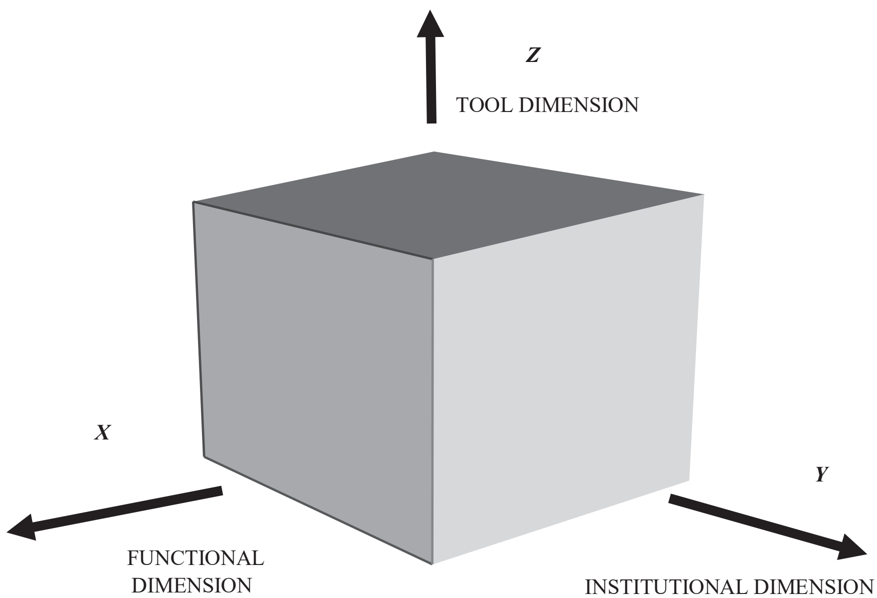

Figure 8.1. A 3-D model for measuring the quality and efficiency of onboarding

Source: own study.

The product of the points awarded in each of these three dimensions is a quantitative indicator of the assessment of these phenomena. In the graphic interpretation, this is a specific volume of a polygon (cube) with dimensions as x, y, and z. Thus V illustrates in quantitative form the parameter describing, in a given adopted scale, the level of process implementation in relation to the expected goals, standards and assumptions of the HRM strategy in relation to the introduction of new employees to work in the onboarding process. The adaptation, which must realise the assumed functions, is implemented with the involvement of the people responsible for this process, and with the help of effectively used tools. The maximum level of the VONBOARDING indicator is the value of the product of the maximum level of the scale to the power of three; for example, if the scale is 5 points, it means 125 points. Thus the achievement of, for example, level X) 4.5; Y) 3.88, Z) 4.25, generates a contractual level of implementation of the implementation process at 74.20% – which can be interpreted as an average level, additionally indicating which factor is the most critical. It is worth emphasizing with such a calculation logic, that it is enough – with two very high indicators – the assessment of one oscillating towards the level [0], to obtain a very low result within the product. This indicates the mechanism and necessity of a systemic approach to HRM practices, which is the process of the introduction to work.

8.6. Assumptions for the design of the onboarding process measurement approach

Assumption 1. A given area, process, element being a homogeneous component – constituting a partial criterion for the assessment of a given dimension – has its semantic description. Each sub-criterion should therefore have its ‘analytical key’, i.e. a semantic description of understanding a given criterion. This means that the partial criteria should be disaggregated into elementary criteria, which, in turn, should be homogeneous and objective enough to be subject to a measurable assessment.

Assumption 2. For each dimension, a checklist of survey questions/interviews is prepared, with selected entities that are involved, respond to, or are beneficiaries of the onboarding process. The standardized responses obtained in such a survey are translated into the above-mentioned value scale. The scoring weights are determined through analysis and discussion during the work of the evaluation team (researchers/managers/HR).

Assumption 3. The same valuation scale is established for all dimensions. Based on interviews with employees, surveys and questionnaires, as well as the analysis of documentation in the company, the appraisal team – after a discussion – undertakes a team assessment on the adopted scale. This may be an example of a practical scale of the onboarding process of the surveyed company, where:

- *Value 0 – the given element, the area is not present (it is very inefficient).*
- *Value 1 – the given element, the area is (is ineffective) almost noticeable, of marginal importance.*
- *Value 2 – the given element, the area is being implemented (it is functional, but with many errors), improvement is recommended.*
- *Value 3 – a given element, area is implemented (is efficient) in the company, but requires improvements to make it even more effective.*
- *Value 4 – a given element, area is implemented (it is significantly efficient) in the company and contributes to optimization.*
- *Value 5 – a given element, area is implemented (highly efficient) in the company, constantly improved and developed, is a key success factor in achieving onboarding goals.*

A given element is understood in this description as a specific function, tool, unit or its feature, in the broad understanding of the process of the adaptation, implementation and integration of a newly hired employee into the structure of the analyzed organization. Below are listed some examples of the valuation matrices for individual dimensions, which can be an example of the operationalization of the adopted model at the level of collecting data for a given category (X, Y, Z), and a proposal to build scales and dedicated weights to the needs and specificity of the examined entity. The study in each of the following three aspects includes the use of a survey dedicated to each group, and interviews with both the management staff, and employees being engaged and the HR Department. If there is a possibility of access to source data, it is recommended to analyze the documentation or digital resources related to the introduction of the employee.

Valuation matrices

(X) FUNCTIONAL DIMENSION – analysis of the implementation of individual goals: social and organizational of onboarding. An example of the scheme for the valuation of partial criteria for the functional dimension, including the valuation of the level of achievement of the main goals of onboarding, is shown below.

PARTIAL CRITERION – THE COMPANY TAKING ACTIONS ON A GIVEN ONBOARDING SUBFUNCTION WITH RESPECT TO THE PURPOSES OF ADAPTATION			
Dimension component – elementary criterion	Number of points	Weight	Total
Social goal			
Organizational goal			
Specific goal (specific to the team or part of the organization)			
FINAL RESULT	0.00		

(Y) INSTRUMENTAL DIMENSION – analysis of the application of particular organizational tools and techniques in a given company. An example of the scheme for the evaluation of partial criteria for the instrumental dimension by evaluating the effectiveness of tools in the company's practice, is shown below.

PARTIAL CRITERION – EVALUATION OF THE FUNCTIONALITY OF THE ONBOARDING TOOLS IN THE PRACTICE OF THE RESEARCH COMPANY			
Dimension component – elementary criterion	Number of points	Weight	Total
Introductory training			
Mentoring			
Vocational training			
Introductory task			
Social media			
Company websites/Internet sources			
FINAL RESULT	0.00		

(Z) INSTITUTIONAL DIMENSION – analysis and cross-evaluation of all involved entities in the organization in the introduction of a new employee. The cross--evaluation of all the entities based on the 360-degree evaluation methodology can be used here.

PARTIAL CRITERION – TASKS OF ENTITIES INVOLVED IN THE PROCESS			
Dimension component – elementary criterion	Number of points	Weight	Total
HR Unit/HRBP			
Manager/supervisor			
Mentor			
Co-workers			
FINAL RESULT	0.00		

8.7. Final conclusions

The presented research model aims to identify the components of the onboarding process and assess the potential level of its implementation efficiency in remote work conditions in selected IT organizations. The presented methodology was used to identify and potentially indicate the factors ensuring the quality and efficiency of the implementation of new employees to work in the specific organizational culture of technology companies. As a target and model, the authors set out to obtain a set of data that would allow for the comparison of the two analyzed periods, using the same methodology for assessing the onboarding efficiency parameter V – in the time before the pandemic – "in the analogue formula", during the pandemic, and during its termination. It can be pointed out that the research process should also be based on the logic of longitudinal research. Thus, the value of the examined final diagnostic parameter should be analyzed in terms of the contractual difference in the assessment of the value of parameter V in the post-pandemic period (ONLINE onboarding), compared to the experiences of the surveyed companies before 2020 (ANALOGUE onboarding). By doing this, a specific comparison base can be obtained, where a cut-off point important on the timeline is established – the reorientation of HRM activities in the remote, virtual, digital sphere – providing the basis for the diagnosis of the impact of the conditions of the digitalized adaptation decisions affecting the success of introduction to work. This notation can be determined by the following formula:

$$\mathbf{V}_{\mathbf{DIAGNOSTIC}} = \mathbf{V}_{\mathbf{ONBOARDING}}\,(\text{ONLINE TIME}) - \mathbf{V}_{\mathbf{ONBOARDING}}\,(\text{ANALOG TIME}).$$

Such a dependency (NEGATIVE or POSITIVE) would indicate the possibility of interpreting the test result in a pandemic period, i.e. in online conditions, a potential increase/decrease in the quality and efficiency of remote actions in relation to the previous experiences of IT companies in the field of adapting new employees using traditional forms of implementation. This would be a very rich and interesting matter to commence a detailed and in-depth qualitative research, in line with the wider measurement of the quality and efficiency of the implementation of the personnel function in times of online work organization, while moving away from the darkness of the pandemic.

Chapter 9

ERROR IN ACTION IN THE VUCA WORLD – A CONCEPTUALIZATION OF THE KEY CONCEPTS FOR EMPIRICAL RESEARCH

Anna Pluta[a], **Krzysztof Kowalski**[b]

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The most persistent principles of the universe are accident and error.

Frank Herbert, "Dune"

9.1. Introduction

Military conflicts, pandemics, global climate changes, rapidly growing technological development, virtual reality, automation and robotization, and many other causes are currently impacting on the operation of both organizations and people. The world is becoming increasingly more reminiscent of the reality of wartime, in which Volatility, Uncertainty, Complexity, and Ambiguity dominate what the literature of the subject calls "the VUCA world" (Bennett and Lemoine, 2014). Volatility means the speed, magnitude, and dynamics of change, while Uncertainty describes the unpredictability of problems and events. Complexity means chaos surrounding all organizations, and Ambiguity describes the inability to define reality unequivocally (Kok and Van den Heuvel, 2019).

Individual efficiency plays an important role, especially in the workplace, because it determines the work efficiency of employee teams and the entire organization. Individual behaviors and results are related to organizational goals, contributing to their implementation (Potsangbam, 2018). In the VUCA world, relations and communication processes between employees residing in different locations become particularly important for the formation of efficiency (Baran and Woznyj, 2021; Dima, Meseșan Schmitz, and Simon, 2021). Communication difficulties can exacerbate social isolation and complicate the process of knowledge exchange

[a] University of Szczecin, ORCID: 0000-0002-9833-3908.
[b] WSB University in Poznań, ORCID: 000-0003-3163-9731.

between employees, which is necessary to generate ideas to achieve organizational goals (Bodla, Tang, Jiang, and Tian, 2016; Kmieciak, 2021). This applies to various areas of communication, but in the VUCA world it becomes clearly visible to omit, silence, and even hide errors appearing in the work process (Pluta and Rudawska, 2020). Such an approach seems to be a consequence of the practice established in business of following the assumption that “mistakes should be avoided” (Wontorczyk, 2020) because their occurrence has negative consequences for the persons who made such a mistake, and furthermore for the organization that employs them. Mistakes increase employees’ stress and dissatisfaction with work. They can also lead to high employee turnover (Frese, 1987), and in the case of an organization, they increase operating costs and damage its image, whilst also lowering customer satisfaction (Zhao and Olivera, 2006), thus harming the assessment of efficiency at individual and organizational levels.

Taking this into consideration, it seems important to take actions aimed at changing the highlighted situation and making business practitioners aware that in the VUCA world, communication should not be limited – on the contrary, it is necessary to actively promote this in various ways and areas, including those related to the appearance of error. Transparency in employees’ access to information related to potential errors can reduce their occurrence and also become a driving force for employees’ creativity and furthermore unleash their potential (Nemeth and Kwan, 1985; Syed, 2017). According to the authors of this chapter, the basis for the correct preparation and implementation of actions related to highlighting possible errors is the awareness of the type of approach to error by an organization’s employees. A review of the literature on this subject shows that today the pejorative attitude to error prevails (Pluta and Rudawska, 2021; Wontarczyk, 2020). On the one hand, it can be treated as a risk factor, a problem that interferes with actions and disrupts the status quo, so its appearance is unwanted. On the other hand, an error can be treated as a natural element of an action that happens. Its occurrence informs the individual who made the mistake that it is necessary to modify the action because the current procedure does not produce positive results.

The outlined approaches to error may affect the assessment of efficiency of operation at individual and organizational levels. Therefore, it seems important to empirically check which approach to error dominates in the VUCA world, and what consequences arise when it comes to assessing operational efficiency. According to the authors, the answer to this question may help an organization’s management in developing activities that shape the workplace, and which ensure achieving efficiency. The starting point for finding this is research, and its initial conceptualization is the purpose of this chapter.

9.2. The phenomenon of the VUCA world and human activity in an organization

In traditional management, before the world of VUCA, organizations and people had more time to plan, create and relate to overarching goals in the long term. The action was then in line with well-researched and thought-out models, e.g. Blanchard's situational management model, which can be used for individual, team, and organizational management (Blanchard, 2007). With the advent of the VUCA world, it was necessary to modify the approach to the efficient operation of the organization. Currently, it is impossible to create long-term plans and strictly execute them, no matter the circumstances. Practical recommendations for action adapted to the requirements of the modern world are (Jari and Lauraéus, 2019):

– anticipating changes in the market requires ever closer contact with customers, partners, and competitors rather than being isolated and reactive;
– interpreting a broad set of data and different points of view, not just looking at what confirms the previously held beliefs;
– challenging assumptions and the status quo by surrounding oneself with people who 'think outside the box' and are open to new ideas;
– deciding what to do after analyzing one's options and then having the courage to do so, rather than discussing or working on the decision-making process;
– matching the interests and incentives of stakeholders based on understanding different views, rather than relying on their authority or position;
– learning from success and failure, experimenting, taking smaller steps, and learning from both good and bad outcomes to create fast learning cycles.

The above presented guidelines are used in organizations during the realization of actions, which are activities that "at the cost of a certain energy expenditure cause a change in the existing situation" (Machnik, 2002), and the achievement of the adopted strategic assumptions. Action changes reality, and this requires: (1) determining the goal, (2) designating the conditions belonging to reality, (3) determining the means appropriate to achieve the goal in the existing reality (Kotarbiński, 2019). These activities can be performed individually or in a team by the organization's employees.

Individual actions prove themselves in the independent implementation of a work cycle, based on a cycle of organized action (Zieleniewski, 1981). Each of the employees carries out the preparatory activities on their own, performs the entire work process themselves, and personally checks whether they have as individuals performed the action correctly – they check if the achieved result is in line with the expected goal. Responsibility for the completed action is here unequivocal and easy to determine because the performer of the action is a single person.

However, in the VUCA world, achieving organizational goals solely based on the actions of individual employees seems quite limited. The main reason is the complexity of the problems to be solved, the need to complete tasks quickly, and the customer's expectation of the original behavior or result. The changing and unpredictable situation of the fulfillment of professional duties modifies the features of the work that is currently being carried out (Pluta, 2016):

– speed, the pace of task execution increases (the effect of time pressure, shortening the deadlines for completing tasks, and accelerating the rhythm of work);
– diversity, includes many different activities/tasks which are accomplished during it;
– complexity, requires the use of various information, methods, and tools because it covers many different aspects of the task;
– unpredictability, it is difficult to predict and plan;
– demanding, it is associated with the permanent development of competencies possessed by executors of work;
– addictive, forces the executor's availability and influences the extension of working time;
– exploitation, leads to significant consumption of the executors' internal potential (i.e. resources, energy).

As a result, the organization's operation is more often based on their employees' teamwork. The executor of the action is then a team of people who work together through the task cycle (Kotarbiński, 2019). In this case, the responsibility for action is distributed among all team members who strive to achieve a common goal through cooperation and mutual assistance. A synergistic effect is visible, according to which the joint interaction of individual members of the employee team leads to better work results than if each employee performed his/her duties in isolation from others (Lachiewicz and Matejun, 2017). This efficiency effect is "related both to the possibility of increasing efficiency as a result of the specialization and humanization of activities, and to the mutual motivational influence in the team" (Kieżun, 1980). This is confirmed by empirical research, for example the analyzes conducted by the American Society for Training and Development show that the use of teamwork causes an increase in productivity in 77% of cases, an increase in product quality in 72% of cases, reduction in unproductive costs in 55% of companies, an increase in job satisfaction in 65% of cases, and an increase in customer satisfaction in 57% of cases (Kobushko, Kobushko, Starinskyi, and Zavalna, 2020).

However, it should be emphasized that although team action has its undoubted advantages, there are situations when this form of action may bring losses. As noted by Stibel (2011), it cannot be said that quantity is better than quality when it comes to people. The author also stated that "I know that great individuals are not only more valuable than legions of mediocrity, they are often more valuable than groups that include great individuals." Therefore, the choice of the form of activity should not be made accidentally or based on superficial arrangements; it should only be the result of considering the costs of cooperation and estimating the benefits of this form of activity during the implementation of a specific task (Hansen, 2014). Thanks to this, it is possible to achieve the efficiency that puts the effectiveness of individual and team activities to the forefront (Covey, 2020), being not a choice, but a basic condition for survival, prosperity, and further development in the present reality.

9.3. The efficiency of individual and team actions and the appearance of an error

The efficiency of action is the basis for the considerations of praxeology. This science is equivalent to logic, except that it does not concern the inference processes but rather the processes and actions. In contrast to the exact sciences which formulate theorems about cause-effect relations, praxeology formulates the so-called efficiency directives – imperative sentences that are not assessed about the criterion of truth or falsehood, but result from empirical analysis (Klincewicz, 2016).

Efficiency means acting in the right way, in other words, correctly carrying out tasks, without unnecessary waste (Zakrzewska-Bielawska, 2017), which consists mainly in (Kieżun, 1980):

– effectiveness, indicating that the effect of the action is consistent with the intended purpose;
– benefit, showing that the achieved result of the activity exceeds its costs;
– economy, the ratio of the result of an action to its costs.

These three basic values are often supplemented with further features of efficient operation because the more forms of efficiency it contains, the more the operation is efficient (Kieżun, 1980). They include, for example (Kieżun, 1980): simplicity (related to a relatively small number of activities more easily related to each other), accuracy (achieving the main goal with a relatively small deflection from the standard), effectiveness (achieving the main and secondary goals at the same or similar costs), pureness (taking into account only elements that are consistent with the main goal, eventually secondary), and energy (associated with sufficient expenditure of energy, which can take the form of resourcefulness, mindfulness, diligence or persistence).

The issue of efficiency considered in this way can be used to evaluate individual, team, and organizational activities. In each case, the certainty in achieving the goal is important, which means that reliability, understood as the ability to perform entrusted tasks with minimal risk of error, under certain conditions and within a specified time, is of particular importance (Ratajczak, 1988) The error then becomes an unwanted and troublesome effect of action, which indicates failure, defeat, and loss (result error), or it is an unwanted element appearing in the course of action (action error) (Tomaszewski, 1975). As an inevitable result, informing others about the occurrence of an error may not be an easy process to implement. Executors experiencing an activity or result error are not always interested in sharing such knowledge with others because they are aware of the competency costs they may have to bear. Seeking help becomes a challenge, as it may imply various dependencies and indicate the inability to perform the task independently (Mueller and Kamdar, 2011). Concern for maintaining a positive image, especially of a creative employee, may interfere not only with asking for help (Ambile, Fisher, and Pillemer, 2014; Carnevale, Huang, Vincent, Farmer, and Wang, 2021), but also with reporting an error.

Error is then equated with failure to achieve a goal (Reason, 2017), and this in the VUCA world where the cult of success and victory is omnipresent, is deeply undesirable. It seems that this type of approach to error can be found in the activities of organizations focused primarily on profit maximization (Greenbaum, Bonner, Mawritz, Butts, and Smith, 2020) and excessively accelerated, those that fell into the "acceleration trap" (Bruch and Menges, 2010), and fearing the loss of their competitive advantage, focus on operational speed (Davis and Atkinson, 2014). The lack of control over the pace of work carried out in the organizations becomes noticeable, which may lead to the performance of several tasks at the same time, as well as setting too short deadlines for the completion of work by the executor, difficulties in coordinating activities in time in the case of several executors for one task, or excessive shortening of the so-called time buffers. A mistake in such a situation increases the risk of a decrease in operation efficiency, both in individual and team activities. Therefore, its occurrence is inadvisable, and it may even be complicated to disclose information about the occurrence of an error. The risk of such a situation increases with the rise in the rank of the executor of the action (Ackoff, 1994). There is no reflection on the topic of the error, which means that it loses its educational value (Wontorczyk, 2020) and becomes a threat because it may reoccur and adversely affect the next efficiency assessment.

However, an error can also be regarded as a natural action component (individual and collective), thus it carries information value and is an element of the learning process. This may positively affect the assessment of the efficiency of the direct executor's operation, which reveals the error, other members of the employee team, and even the organization. Sharing knowledge about a mistake with others prevents the accumulation of unwanted situations in the process of achieving goals, simplifies the search process and finding a solution to the situation, and helps avoid making mistakes in the future (Frese and Keith, 2015). Understanding the strengths and weaknesses of the implemented activity allows to identify repetitive elements and those that require modification. The error, in this case, is the feedback on the action, which indicates the scope and direction of the necessary changes to avoid waste (Pluta, 2020) and to guarantee safety. This is a key element of the learning process, which can be defined as "increasing one's capacity to take effective action" (Kim, 1998).

Nevertheless, one should stress that communicating the occurrence of an error or concealing this fact is a derivative of many factors. The analysis of literature on this subject shows that implementing a culture of error management is of key importance (van Dyck et al., 2005), which allows for free communication between employees, during which information about incidents occurring during operation is transferred (Edmondson, 1999). Researchers also focused on maintaining psychological safety, which indicates how the employee perceives the consequences of taking an interpersonal risk in the workplace (Edmondson, 1999; Edmondson and Lei, 2014) and whether they are not afraid to talk publicly about their work and the related difficulties. However, there is a lack of studies that specifically show the exchange of information about errors in operation. It also does not analyze what happens to the efficiency of an individual or team's actions after an error occurs and does not consider the mechanism of shaping the efficiency of action, especially in the context of the attitude that the individual adopts about the error in action and resulting from its behavior. Taking this into consideration, the authors of the chapter see a research gap that they intend to fill with further planned research.

9.4. A theoretical model for testing the efficiency of operation in the VUCA world

In the context of these considerations, a mistake, especially its perception by an individual, seems to affect the transmission or concealment of information about its occurrence and therefore may play an important role in shaping the efficiency of future action. According to the authors, it is important to empirically confirm these assumptions and additionally check whether the form of action (individual, team) is a factor that differentiates the approach to error and the resulting behavior of the employee, which in turn affects the efficiency of action. It can be assumed that treating the error as a component of natural action is closer to individual actions, which change positively into the achieved efficiency level. In the case of team activities, the authors assume that an important element influencing the perception of error is the concern about one's reputation and the desire to reduce costs associated with competency. This may lead to treating the error as a factor disturbing the *status*

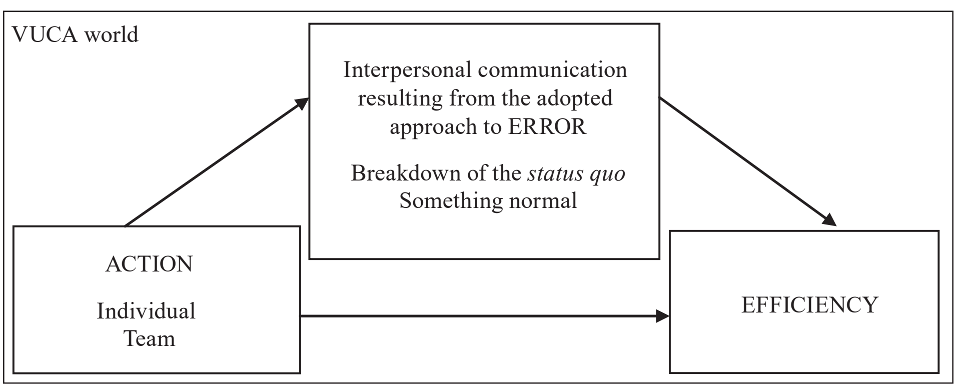

Figure 9.1. A theoretical model of shaping employee's performance in the VUCA world

Source: own study.

quo of the employee and hiding the error, or ignoring its appearance and as a result not passing information about it to others, which will probably translate into a reduction in the efficiency of action. The visualization of these relations, which is signalled by the sequence: action – interpersonal communication resulting from the adopted approach to error – efficiency of action, is shown in Figure 9.1.

9.5. Final conclusions

Error appears in all human activity. However, its reception is different, which means that the information it carries is sometimes ignored and even hidden in the VUCA world, which may adversely affect the assessment of human performance. These considerations were intended to lead to the presentation of the concept of empirical research in this area. The authors, presenting the research subject, discuss the components of the research model constructs and pay attention to the potentially possible relations between them. Thanks to this, it becomes possible to select specific measures of individual constructs and develop a detailed study plan, the conclusions of which will enrich existing knowledge and allow for the formulation of recommendations for practical use adequate to the needs. According to the authors, the conclusions from the research and their translation into practical guidelines would concern: organization management, human resource management in the organization, and recommendations for individual use by employees of the organization. Practical implications for businesses would focus on promoting preferred values and competences expected from managers and employees, as well as on recommending a necessary training program to develop expected values and competences.

SUMMARY

It appears that the authors of this book have managed to present various aspects important from the perspective of talent management, leadership, employee and competency development characteristic for the dynamics of environmental changes.

The research results presented in Chapter 1 confirm that Polish-headquartered MNCs appreciate their human resources. They perceive them as a company's competitive factor of a somewhat higher value than that ascribed to human resources by their main competitors. More advanced practices in areas of talent management and organizational leadership development exist in the biggest analyzed foreign entities than in all units (average rating) of MNCs research in the sample. The conducted research shows that the most important areas in the development of organizational leadership and talent management according to both the average assessment of all enterprise entities and the largest foreign entity is *identification of leadership talents.* What is most important in the conducted research is a statistically significant dependence – *the higher the level of development of leadership traits and relationships in the largest foreign entity, the higher the human capital*. There is also a statistically significant correlation between *talent management practices and development of leadership traits and relationships, and the competences of the managerial staff in the entire company.* Additionally, the consistency of solutions in the surveyed enterprises confirms the results in the area of developing traits and leadership relationships and talent management, in which the impact of formal leadership and talent management programs on the increase of managerial and human resources competences in the enterprise is observed.

In Chapter 2 the authors demonstrate that the analyzed TM programs were implemented with the goal of achieving their specific aims, and concentrated on the narrow aspect of the needs of talents. However, they were coordinated and associated with other systems and aims of HR, or identified with them. The results show that TM programs are based on business strategies and the strategies of talents. They are also fully integrated with other systems and HR processes, while also managed as basic business practices. In the perspective of the analyzed enterprises, they should prepare and implement talent management into a fully integrated system, in order to ensure the full benefits of the possible synergic benefits for the organization as a whole. Developing the strategic abilities of TM requires specifying the program of talent management, including first and foremost the evaluation of talent, which should be applied for the measurement of the effectiveness of the program. The authors pointed out that TM must be an integral part of the business strategy in order to be effective. TM signifies the attempt to make use of the full potential of human capital of this intangible resource, which brings with it the intricacy and associations linked with human behavior.

Chapter 3 provides an opportunity to rethink the role of humility in organizations and management. The authors, in summarising the chapter, present their results which confirmed the re-evaluations in terms of humility that have taken place over the years and which are promising when it comes to using humility in making changes, i.e. moving away from the current model of organization/economy development (moderated by GDP growth and consumption) towards development ensuring the integration of economic, social and environmental goals. They stressed that the conducted literature and empirical research indicated the ambiguity of the concept of humility and difficulties in achieving a consensus in its understanding. This, in turn, results in problems in formulating recommendations (including for business), which constitutes a barrier in the preparation of tools allowing for shaping humility as the desired competence of the manager. The results of the self-assessment of managers/entrepreneurs regarding the association of humility with different types of personality and, consequently, with different styles of management can also be considered as satisfying expectations, which allows its wide use by managers. The statements of the respondents (entrepreneurs, managers) regarding more humble management in the future are also promising.

Chapter 4 shows that the research allows for drawing several conclusions. The author indicates, that among the ways of acquiring knowledge one can distinguish those concerning tacit knowledge, such as gaining experience, workplace training, and reflection, as well as those concerning rather explicit knowledge such as talks, training and creating databases. The separation of the accepted categories from the material received proved difficult, as they often occurred simultaneously. This appears to be an important advantage of ethnographic research, through which one see not merely a list of activities with a percentage share. It may be noted that sometimes knowledge was created as planned (training), using only one tool (database), and sometimes everything happened simultaneously (talk, legal provisions, reflection, making mistakes). In the author's opinion, the metaphor emerging from the research can be expressed as the 'knowledge cocktail' (understood as a mix, an amalgam of different components), which seeks to respond, as far as possible, to the challenge of the situation. The use of the 'knowledge cocktail' adds essential ingredients, enriching its composition in the future. The processes and types are important in planning and evaluating the achievement of the organization's objectives. The practical approach to the disclosure of knowledge was mostly visible during the performance of the tasks, in the way in which people use their abilities, skills and competences in real organizational conditions and relationships.

The author of Chapter 5 emphasizes that managers overseeing projects and processes should adopt this approach to effectively achieve goals and improve the efficiency of managing the entire organization. Being customer-focused is not enough – it is the creative and innovative attitude of employees that guarantees the high quality of process management. An employee who participates in these processes should be perceived as the one who gathers knowledge about them and constitutes the intellectual capital of the organization. Along with the ability to work in a team and use and share knowledge and experience, the employee contributes to organizational learning and improving the quality of processes. The underestimation of social processes by managers results in perpetuating the lack of independence, entrepreneurship and creativity among employees, legitimizes a closed attitude and creates real threats to the implementation of processes, their goals and strategic assumptions. Process management issues and the managers' limited awareness of the existing relations between processes-projects-knowledge make the postulated strategic approach to human resource management perennially topical. The individual phases of this function, activities such as personnel planning, employee selection, people management and leadership, motivating, rewarding and developing employees, are elements of the Integrated Process Management system.

In Chapter 6, the authors conclude that there are some competency gaps in the field of digital competencies of students at the Cracow University of Economics. Comparing the gap with the competency self-assessment, they found that there are differences in the assessment of the digital competence gaps within other competences. This proves that young people are still not fully aware of their potential and need to be educated in a more thorough way. The authors suggest that education within the digital competences is a crucial aspect and should be developed starting from an early age. They also highlight the fact that the additional courses on programming should be implemented in every course of study and the use of online learning methods should be continued as that develops digital competence in a significant way not by theory but through practice. The authors admit that their research has various limitations, such as being conducted in one university, online – without the full control over the respondents, and using questionnaires created in pre-pandemic conditions. Taking all these aspects into account, they treat this study as the foundation for the next steps and indicate that the future research actions are being planned, namely expanding the research sample on other universities, conducting the research in person, and improving the questionnaire to be closer to the digcomp concept compared to the first version used during the pilot study.

In Chapter 7 the results of the literature analysis and empirical studies enabled to answer research questions related to the problem with defining *propensity.* The author assumed that *the employee propensity to professional development* is *the employee's attitude characterised by a relatively stable, general will to undertake developmental tasks.* The results of the outcomes' analysis allowed to conclude that the age, gender, education, job and the size of the company differentiated the respondents' answers to the question concerning planning the realisation of goals, whereas the differentiation was not so clearly visible regarding working experience and industry. The analysis shows that there is a positive relation between employee propensity to professional development and their capability to achieve professional goals. Assuming that the correlation between variables is statistically important and taking into consideration the direction of the correlation, it is clear that the higher the employees' propensity for professional development, the better their ability to plan the realisation of their goals. From the perspective of HRM, this is significant information taking into consideration the planning of developmental programs and increasing the effectiveness of the decisions linked with investing in the professional development of employees.

The research model presented in Chapter 8 looks to identify the components of the onboarding process and assess the potential level of its implementation efficiency in remote work conditions in selected IT organizations. The presented methodology aims to identify and potentially indicate the factors ensuring the quality and efficiency of the implementation of new employees (having specific abilities, traits, knowledge and skills) to work in the specific organizational culture of technology companies. The authors assess the onboarding efficiency parameter in two periods – before and during the pandemic. They stress that the research process should be based on the logic of longitudinal research. Thus, the value of the examined final diagnostic parameter should be analyzed in terms of the contractual difference in the assessment of this parameter during the pandemic (ONLINE onboarding), and before it started in about 2020 (ANALOGUE onboarding). The authors indicated that thanks to the presented approach, the factors affecting HRM and the success of the introduction to work can be found. Taking all the above into consideration, the authors think that the presented discussion and the offered methods could be a very rich and interesting material to start a detailed and in-depth qualitative research in line with the wider measurement of the quality and efficiency of the implementation of the personnel function in the times of online work organization post-pandemic.

Finally, in Chapter 9 the authors would like to convince the readers that errors appear in all human activity. However, their reception is different, which means that the carried information is sometimes ignored and even hidden in the VUCA world, which may adversely affect the assessment of human performance. These considerations led them to the presentation of the concept of empirical research in this area. The authors, presenting the research subject, discuss the components of the research model constructs and pay attention to the potentially possible relations between them. Thanks to this, it becomes possible to select specific measures of individual constructs and develop a detailed study plan, the conclusions of which can enrich the existing knowledge and allow for the formulation of recommendations for practical use relevant to the needs. According to the authors, the conclusions from the research and their translation into practical guidelines concern organization management, human resource management in the organization, and recommendations for individual use by its employees. The practical implications for business would focus on promoting the preferred values and competences expected from managers and employees, as well as on recommending the required training programs which can develop the expected values and competences.

The various aspects presented in this book confirm how difficult and demanding, but at the same time full of possibilities and inspiring, talent management is – in terms of employee potential, their competences in the organization observed from the employee, managerial, leadership and organizational perspective. Although the term does not appear *expressis verbis* in all the chapters, direct or indirect references to it constitute the essence of each discussed aspect in the entire monograph.

REFERENCES

1. Ackoff, R. L. (1994). It's a mistake! *Systems Practice*, *7*(1), 3-7. https://doi.org/10.1007/BF02169161
2. *Activities of enterprises having foreign entities in 2015.* (2017). Warsaw: Central Statistical Office..
3. Adamiecki, K. (1932). Zastosowanie nauki kierownictwa (organizacji) w życiu gospodarczym. *Przegląd Organizacji*, (1), 4-12.
4. Adler, N. J., and Bartholomew, S. (1992). Managing global competent people. *Academy of Management Executive*, *6*(3).
5. Ala-Mutka, K. (2011). *Mapping digital competence: Towards a conceptual understanding*. Luxembourg: Publications Office of the European Union.
6. Alshare, K. and Sewailem, M. F. (2018). A gap analysis of business students skills In the 21[st]. *Academy of Educational Leadership Journal*, *22*(1), 1-22.
7. Amabile, T., Fisher, C. M., and Pillemer, J. (2014). IDEO's culture of helping. *Harvard Business Review*, *52*(1), 54-61.
8. Amagoh, F. (2009). Leadership development and leadership effectiveness. *Management Decision*, *47*(6), 989-999. doi.org/10.1108/00251740910966695
9. Appelbaum, S. H., St-Pierre, N., and Glavas, W. (1998). Strategic organizational change: The role of leadership, learning, motivation and productivity. *Management Decision*, *36*(5), 289-301. https:// doi.org/10.1108/00251749810220496
10. Argandona, A. (2015). Humility in management. *Journal of Business Ethics, 132*, 63-71.
11. Argyris, C., and Schön, D. A. (1996). *Organizational learning II*: *Theory, method, and practice*. Massachusetts: Addison-Wesley Reading.
12. Armstrong, M. (2001). *Zarządzanie zasobami ludzkimi*. Kraków: Publisher Oficyna Ekonomiczna, Dom Wydawniczy ABC.
13. Armstrong, M. (2007). *Zarządzanie zasobami Ludzkimi*. Warszawa: Wolters Kluwer Polska.
14. Arnold, K. A., Barling, J., and Kelloway, E. K. (2001). Transformational leadership or the iron cage: Which predicts trust, commitment and team efficacy? *Leadership and Organization Development Journal*, *22*(7), 315-320.
15. Avolio, B. J., Zhu, W., Koh, W. L., and Bhatia, P. (2004). Transformational leadership and organizational commitment: Mediating role of psychological empowerment and moderating role of structural distance. *Journal of Organizational Behavior*, (25), 951-968.
16. Babik, W. (2005) Zarządzanie wiedzą we współczesnych systemach informacyjnych. *Zagadnienia Informacji Naukowej*, *1*(85), 3-22.
17. Baran, B. E., and Woznyj, H. M. (2021). Managing VUCA: The human dynamics of agility. *Organizational Dynamics*, *50*(2). https://doi.org/10.1016/j.orgdyn.2020.100787
18. Barth, F. (2002). An anthropology of knowledge. *Current Anthropology*, *43*(1), 1-18. doi:10.1086/324131
19. Bartunek, J., Rynes, S., and Ireland, R. D. (2006). What makes management research interesting, and why does it matter? *Academy of Management Journal*, *49*, 9-15.
20. Bauer, T. N. (2013). Onboarding new Employees: Maximizing success. *SHRM*. Retrieved April 21, 2022 from https://www.shrm.org/hr-today/trends-and-forecasting/special- reports-and-expert-views/Documents/Onboarding-New-Employees.pdf
21. Bauer, T. N., and Erdogan, B. (2011). Organizational socialization: The effective onboarding of new employees. In S. Zedeck (Ed.), *Maintaining, expanding, and contracting the organization Handbooks in psychology, Handbook of industrial and organizational psychology. Vol. 3* (pp. 51--64). American Psychological Association.

22. Becker, B. E., Huselid M. A., and Beatty, R. W. (2009). *The differentiated workforce: Transforming talent into strategic impact.* Boston: Harvard Business School Press.
23. Becker, B. E., Huselid, M. A., and Ulrich, D. (2001). *The HR scorecard: Linking people, strategy, and performance.* Boston: Harvard Business School Press.
24. Bennett, M., and Bell, A. (2004). *Leadership and talent in Asia: How best employers deliver extraordinary performance.* Singapore: John Wiley & Sons.
25. Bennett, N., and Lemoine, G. (2014). What VUCA really means for you. *Harvard Business Review*, *92*(1-2), 27.
26. Berger, L., and Berger, D. (2003). *Talent management handbook: Creating organizational excellence by identifying, developing & promoting your best people*. McGraw-Hill.
27. Bitkowska, A. (2019). *Od klasycznego do zintegrowanego zarządzania procesowego w organizacjach*. Warszawa: Wydawnictwo C.H. Beck.
28. Black, S., Morrison, A., and Gregersen, H. (1999). *Global explorers: The next generation of leaders*. New York: Routledge.
29. Blanchard, K. (2007). *Przywództwo wyższego stopnia*. Warszawa: Wydawnictwo Naukowe PWN.
30. Blass, E., Knights, A., and Orbea, A. (2006). *Developing future leaders: The contribution of TM*. Ashridge Business School, UK. Retrieved January 7, 2017 from http://ashridge.org.uk
31. Błaszczuk, A., Brdulak, J. J., Guzik, M., and Pawluczuk, A. (2003) *Zarządzanie wiedzą w polskich przedsiębiorstwach*. Warszawa: Szkoła Główna Handlowa.
32. Bodla, A. A., Tang, N., Jiang, W., and Tian, L. (2016). Diversity and creativity in cross-national teams: The role of team knowledge sharing and inclusive climate. *Journal of Management & Organization*, *24*(5), 711-729. https://doi.org/10.1017/jmo.2016.34
33. Bogdanienko, J. (2004) *Innowacyjność przedsiębiorstw*. Toruń: Wydawnictwo Uniwersytetu Mikołaja Kopernika.
34. Bolander, P., Werr, A., and Asplund, K. (2017). The practice of talent management: A framework and typology. *Personnel Review*, *46*(8), 1523-1551.
35. Bolesta-Kukułka, K. (2000). *Decyzje menedżerskie w teorii i praktyce zarządzania.* Warszawa: Wydawnictwo Naukowe Wydziału Zarządzania Uniwersytetu Warszawskiego.
36. Boudreau, J., and Cascio, W. F. (2013). Inwestowanie w ludzi. *International Management*, *1*(3).
37. Brewster, C., Morley, M., and Bučiūnienė, I. (2010). The reality of human resource management in Central and Eastern Europe: A special issue to mark the 20th anniversary of Cranet (the Cranfield Network on Comparative Human Resource Management). *Baltic Journal of Management*, *5*(2).
38. Brewster, C., Sparrow, P., Vernon, G., and Houldsworth, E. (2011). *International human resource management.* London: Chartered Institute of Personnel and Development.
39. Briscoe, D. R., Schuler, R. S., and Claus, L. (2008). *International human resource management*. Routledge: London and New York.
40. Brocke, J., and Rosemann, M. (Eds.). *International handbooks on information systems*. Berlin, Heidelberg: Springer-Verlag.
41. Bruch, H., and Menges, J. I. (2010). Pułapka przyspieszenia. *Harvard Business Review Polska*, *11*(93), 78-85.
42. Brunet-Thornton, R. (2017). Foreword to the special edition, the return to Europe: A generation of re-inventing national identities. *Baltic Journal of Management*, *12*(1).
43. Bryman, A., Collinson, D., Grint, K., Jackson, B., and Uhl-Bien, M. (2011). *The SAGE handbook of leadership*. Sage.
44. Buchan, J., and Yang, J. J. (2017). *Onboarding process in agile software development team: An empirical study*. Aucklad University of Technology. Retrieved April 20, 2022 from https://openrepository.aut.ac.nz/handle/10292/11450?show=full
45. Bulldogjob. (2021). *Raport z Badania społeczności IT 2021*. Retrieved April 15, 2022 from https://bulldogjob.pl/it-report/2021

46. Campbell, B. A., Coff, R., and Kryscynski, D. (2012). Rethinking sustained competitive advantage from human capital. *Academy of Management Review*, *37*(3).
47. Capgemini. (2012). *Global business process management report*. Retrieved from https://www.slideshare.net/pexnetwork/global-business-process-management-report
48. Capgemini. (2017). *Global business process management report*. Retrieved from https://www.capgemini.com/wp-content/uploads/2017/07/Global_Business_Process_Management_Report.pdf
49. Carnevale, J. B., Huang, L., Vincent, L. C., Farmer, S., and Wang, L. (2021). Better to give than to receive [or seek] help? The interpersonal dynamics of maintaining a reputation for creativity. *Organizational Behavior and Human Decision Processes*, *167*(September), 144-156. https://doi.org/10.1016/j.obhdp.2021.08.006
50. Catlin, K., and Matthews, J. (2002). *Building the awesome organization. Six essential components that drive entrepreneurial growth.* Hungry Minds.
51. Cattaneo, A., Antonietti, C., and Rauseo, M. (2022). How digitalised are vocational teachers? Assessing digital competence in vocational education and looking at its underlying factors. *Computers & Education, 176.*
52. Cefkin, M. (Ed.). (2010). *Etnography and the corporate encounter reflection on research in and of corporations*. New York: Berghahn Books.
53. Chambers, E. G., Foulon, M., Handfield-Jones, H., Hankin, S. M., and Michaels III, E. G. (1998). The war for talent. *The McKinsey Quarterly: The Online Journal of McKinsey & Co*., (3).
54. Chen, M. J. (2016). Competitive dynamics: Eastern roots, Western growth. *Cross Cultural & Strategic Management*, *23*(4).
55. Chew, J., and Chan, C. C. (2008). HR practices. Organizational Commitment and intention to stay. *International Journal of Manpower*, *29*(6), 503-522.
56. Chillakuri, B. (2020). Understanding generation Z expectations for effective onboarding. *Journal of Organizational Change Management.* Retrieved April 21, 2022 from https://doi.org/10.1108/JOCM-02-2020-0058
57. Chmielewska-Muciek, D. (2018). Proces zarządzania wiedzą w świetle literatury. *Annales Universitatis Mariae Curie-Skłodowska, 1*(52). 29-37. doi:10.17951/h.2018.52.1.29
58. Cole, G. (2016). Managing talent development effectively: Why outsiders matter too. *Human Resource Management International Digest*, *24*(3), 26-28.
59. Collings, D. G., and Mellahi, K. (2009). Strategic talent management: A review and research agenda. *Human Resource Management Review*, *19*(4), 304-313.
60. Collins, D. B., and Holton, III. E. F. (2004). The effectiveness of managerial leadership development programs: A meta-analysis of studies from 1982 to 2001. *Human Resource Development Quarterly*, *15*(2), 217-248.
61. Collins, J. (2001). Level 5 leadership. The triumph of humility and fierce resolve. *Harvard Business Review, 79*(1), 66-73.
62. Cooke, F. L., Veen, A., and Wood, G. (2017). What do we know about cross-country comparative studies in HRM? A critical review of literature in the period of 2000-2014. *The International Journal of Human Resource Management*, 28(1).
63. Coulson-Thomas, C. (2012). Talent management and building high performance organisations. *Industrial and Commercial Training*, *44*(7), 429-436.
64. Covey, S. R. (2020). *8. Nawyk. Od efektywności do wielkości i odkrycia własnego głosu*. Rebis.
65. Creswell, J. (2013). Projektowanie badań naukowych. Metody jakościowe, ilościowe i mieszane. Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego.
66. Csoka, L. S., and Hackett, B. (1998). *Transforming the HR function for global business success*. New York: The Conference Board.
67. Dagdeviren, H., Lund-Thomsen, P., and McCann, L. (2017). Multiple paths through the complexities of globalization: The next three years of Competition & Change, *Competition & Change*, *21*(1) 3-9.

68. Danik, L., and Kowalik, I. (2015). Success factors and development barriers perceived by the Polish born global companies. Empirical study results. *Journal of East European Management Studies, 1*(1), 360-390.
69. Das, H., and Long, B. S. (2010). What makes management research interesting? An exploratory study. *Journal of Managerial Issues*, *22*(1), 127-144.
70. Davenport, T. H. (1993). *Process innovation: Reengineering work through information technology*. Boston: Harvard Business School Press.
71. Davenport, T. H., and Prusak, L. (1998). *Working knowledge: How organizations manage what they know.* Boston: Harvard Business School Press.
72. Davis, J. R., and Atkinson, T. (2014). Chcesz przyspieszyć? Zwolnij. *Harvard Business Review Polska*. Retrieved from http://www.hbrp.pl/news.php?id=179&t=trendy-chcesz-przyspieszyc-zwolnij
73. Deloite. (2018). *Tech trends 2018. The symphonic enterprise*. Retrieved from https://www2.deloitte.com
74. Deloite. (2021). *Raport: Global human capital trends 2021*. Retrieved from https://www2.deloitte.com
75. Dickmann, M., Brewster, C., and Sparrow, P. (Eds.). (2016). *International human resource management. Contemporary HR Issues in Europe.* New York: Taylor & Francis.
76. Dima, G., Meseșan Schmitz, L., and Șimon, M. C. (2021). Job stress and burnout among social workers in the VUCA world of covid-19 pandemic. *Sustainability [Switzerland]*, *13*(13). doi.org/10.3390/su13137109
77. Downs, Y., and Swailes, S. (2013). A capability approach to organizational talent management. *Human Resource Development International*, *16*(3), 267-281. doi.org/10.1080/13678868.2013.782992
78. Drucker, P. F. (2000). *Management challenges for the 21st century*. Oxford: Elsevier Ltd.
79. Drucker, P. F. (2006). Retrieved from https://thoughtmanagement.org, 2013/07/10/culture-eats-your-structure-for-lunch
80. Duda, J. (2017). *Internacjonalizacja polskich mikro- i małych przedsiębiorstw w procesie integracji europejskiej i globalizacji*. Warszawa: Wydawnictwo Difin.
81. Dutta, V., and Zielińska, T. (2021). Cybersecurity of robotic systems: Leading Challenges and robotic system design methodology. *Electronics*, *10*(22), 2850. doi.org/10.3390/electronics10222850
82. Dyba, W., and Stryjakiewicz, T. (2019). Źródła wiedzy w różnych fazach cyklu życia klastra: przykłady z branży meblarskiej we Włoszech i w Polsce. *Prace Komisji Geografii Przemysłu Polskiego Towarzystwa Geograficznego*, *33*(4), 26-41. doi:10.24917/20801653.334.2
83. Dyer, L. (1993). *Human resources as a source of competitive advantage*. New York: Cornell University ILR School, Ithaca.
84. Edmondson, A. C. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, *44*(2), 350-383. doi.org/10.2307/2666999
85. Edmondson, A. C., and Lei, Z. (2014). Psychological safety: The History, renaissance, and future of an interpersonal construct. *Annual Review of Organizational Psychology and Organizational Behavior*, *1*(1), 23-43. doi.org/10.1146/annurev-orgpsych-031413-091305
86. Egana-delSol, P., Bustelo, M., Ripiani, L., Soler, N., and Viollaz, M. (2022). Automation in Latin America: Are women at higher risk of losing their jobs? *Technological Forecasting and Social Change, 175.*
87. Elset, J. I. (2018). Organizational socialization in remote-working companies: Enhancing company onboarding through gamification. Retrieved April 22, 2022 from https://repositorio.iscteiul.pt/bitstream/10071/18803/1/master_john_iver_elset.pdf
88. Emmerson, H. (1927). Inżynieria społeczna. *Przegląd Organizacji*, *6*, 231-235.
89. Europejski Komitet Regionów. (2019). W*iodącą zasadą dla Europy musi być zrównoważony rozwój*. Retrieved from http:// https://cor.europa.eu/pl/news/Pages/sustainability-needs-to-be-guiding-principle-for-europe.aspx

90. Fabozzi, F. J., Focardi, S. M., and Ma, C. K. (2005). Implementable quantitative research. *The Journal of Alternative Investment*, *8*(2), 71-79.
91. Fagerholm, F., Guinea, A. S., Borenstein, J., and Münch, J. (2014). Onboarding in open source projects. *IEEE Software*, *3*(6). Retrieved April 24, 2022 from https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.673.6091&rep=rep1&type=pdf
92. Farndale, E., Scullion, H., and Sparrow, P. (2010). The role of the corporate HR function in global talent management. *Journal of World Business*, *45*(2), 161-168.
93. Ferrari, A. (2012). *Digital competence in practice: An analysis of frameworks*. Joint Research Centre. Retrieved February 7, 2022 from https://ifap.ru/library/book522.pdf
94. Festing, M., and Sahakiants, I. (2013). Path-dependent evolution of compensation systems in Central and Eastern Europe: A case study of multinational corporation subsidiaries in the Czech Republic, Poland and Hungary. *Europen Management Journal*, 31(4).
95. Fidelus, A. (2012). *Social attitudes as an element of the social capital and its connections with the process of the social readaptation. Forum Pedagogiczne*, (1).
96. Findeisen, S., and Wild, S. (2022). General digital competences of beginning trainees in commercial vocational education and training. *Empirical Research in Vocational Education and Training, 14*(2).
97. Fisher, K., and Duncan Fisher, M. (2001). *The distance manager*. McGraw-Hill.
98. Flores, E., Xu, X., and Lu, Y. (2020). Human capital 4.0: A workforce competence typology for Industry 4.0. *Journal of Manufacturing Technology Management*, *31*(4), 687-703. doi.org/10.1108/JMTM-08-2019-0309
99. Foadi, N., and Varghese, J. (2022). Digital competence – a key competence for todays and future physicians. *Journal of European CME, 11*(1).
100. Frank, P., and Stanszus, L. (2019). Transforming consumer behavior: Introducing self-inquiry-based and self-experience-based learning for building personal competencies for sustainable consumption. *Sustainability*, *11*(9), 1-19.
101. Frese, M. (1987). The industrial and organizational psychology of human-computer interaction in the office. In C.L. Cooper, I.T. Robertson (Eds.), *International review of industrial and organizational psychology*. Wiley.
102. Frese, M., and Keith, N. (2015). Action errors, error management, and learning in organizations. *Annual Review of Psychology*, *66*, 661-687. doi.org/10.1146/annurev-psych-010814-015205
103. Freye, S. (2015). Professional socialization and institutional change: German corporate leaders in transition. *Competition & Change*, *19*(5) 406-426.
104. Friedman, G. (2014). Workers without employers: Shadow corporations and the rise of the gig economy. *Review of Keynesian Economics*, *2*(2).
105. Frostenson, M. (2016). Humility in business: A contextual approach. *Journal of Business Ethics, 138*, 91-102.
106. Fu, Q. Y., Chui, Y. P., and Helander, M. G. (2006). Knowledge identification and management in product design. *Journal of Knowledge Management*, *10*(6), 50-63. doi:10.1108/13673270610709215
107. Gainey, T. W., Kelley, D. E., Hill, J. A. (1999). Telecommuting's impact on corporate culture and individual workers: Examining the effect of employee isolation. *SAM Advanced Management Journal*, *64*.
108. Gallardo-Gallardo, E., Nijs, S., Dries, N., and Gallo, P. (2015). Towards an understanding of talent management as a phenomenon-driven field using bibliometric and content analysis. *Human Resource Management Review*, *25*(3), 264-279. doi.org/10.1016/j.hrmr.2015.04.003
109. Gallego, A., and Kurer, T. (2022). Automation, digitalization, and artificial intelligence in the workplace: Implications for political behavior. *Annual Review of Political Science, 25.*
110. Gaur, D., and Gaur, B. (2020). EXPO 2020: Future of talent management. Dee*pika Gaur, American University in the Emirates*, *24*(1), 1-6.

111. Georgiadou, A., Mouzakitis, S., and Askounis, D. (2021). Working from home during COVID-19 crisis: A cyber security culture assessment survey. *Secur Journal*, *34*(1).
112. Gist, M. (2020, 26 June). Leader humility: The essence of working together. *Leader to Leader,* 14-2.
113. Glińska-Neweś, A. (2010). *Pozytywny potencjał organizacji jako prorozwojowa architektura zasobów przedsiębiorstwa.* In M.J. Stankiewicz (Ed.), *Pozytywny potencjał organizacji. Wstęp do użytecznej teorii zarządzania*. Toruń: Dom Organizatora.
114. Golden, T. D., and Fromen, A. (2011). Does it matter where your manager works? Comparing managerial work mode (traditional, telework, virtual) across subordinate work experiences and outcomes. *Human Relations*, *64*(11).
115. Gomes, C. F., and Yasin, M. M. (2011). Challenges to business education: The gap between practices and expectations. *International Journal of Business Research, 11*(6), 169-177.
116. Gorynia, M. (2021). Świat w obliczu pandemii. Warszawa: CeDeWu.
117. Götz, M. (2014). *Polskie bezpośrednie inwestycje za granicą. Metodologia teorii ugruntowanej*. Poznań: Instytut Zachodni.
118. Graber, S. (2015, March 20). Why remote work thrives in some companies and fails in others. *Harvard Business Review*. Retrieved 25 September, 2019 from https://hbr.org/2015/03/why-remote-work-thrives-in-some-companies-and-fails-in-others?referral=03759&cm_vc=rr_item_page.bottom
119. Grajewski, P. (2007). *Organizacja procesowa*. Warszawa: PWE.
120. Grajewski, P. (2012). *Procesowe zarządzanie organizacją*. Warszawa: Polskie Wydawnictwo Ekonomiczne.
121. Greenbaum, R. L., Bonner, J. M., Mawritz, M. B., Butts, M. M., and Smith, M. B. (2020). It is all about the bottom line: Group bottom-line mentality, psychological safety, and group creativity. *Journal of Organizational Behavior*, *41*(6), 503-517. https://doi.org/10.1002/job.2445
122. Grobelny, J. (2015). Testy inteligencji w ocenie i rekrutacji pracowników IT. *Zeszyty Naukowe. Organizacja i Zarządzanie*, 60, (1200), 47-60.
123. Groves, K. S. (2007). Integrating leadership development and succession planning best practices. *Journal of Management Development*, *26*(3), 239-260. doi.org/10.1108/02621710710732146
124. Grudzewski, W. M., and Hejduk, I. (Eds.). (2001). *Przedsiębiorstwo przyszłości*. Warszawa: Difin.
125. Gruman, J. A., and Saks, A. M. (2018). E-socialization: The problems and the promise of socializing newcomers in the digital age. In J.H. Dulebohn, D.L. Stone (Eds.), *Research in human resource management. The brave new world of eHRM 2.0* (pp. 111-139). IAP Information Age Publishing.
126. Hamdia, M., and Phadett, T. (2011). Conceptual framework on the relationship between human resource management practices, job satisfaction, and turnover. *Journal of Economics and Behavioral Studies*, *2*(2), 41-49.
127. Hammer, M., and Champy, J. (1997). *Reengineering w przedsiębiorstwie*. Warszawa: Wydawnictwo Naukowe PWN.
128. Hansen, M. T. (2014). Gdy wewnętrzna współpraca szkodzi firmie. In *10 idei HRB. O efektywnej współpracy*. Gliwice: Helion.
129. Harmon, P. (2010). The scope and evolution of business process management. In J. vom Brocke, M. Rosemann, *Handbook on business process management 1* (pp. 37-81). doi: 10.1007/978-3-642-00416-2_3
130. Haromszeki, Ł. (2010). Przywództwo w czasie kryzysu. In T. Listwan (Ed.), *Zarządzanie w sytuacjach kryzysowych podczas Euro 2012*. Wrocław: Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu.
131. Haromszeki, Ł. (2014). Expected features and the behavior of talented leaders in the three sectors of the Polish economy in context with other Central-Eastern European Countries. *Journal of Intercultural Management*, *6*(4).

132. Haromszeki, Ł. (2015). Rola przywódców organizacyjnych w kształtowaniu postaw wobec pracy. *Edukacja Menedżerów i Ekonomistów*, (4).
133. Harpelund, Ch., Nielsen, M., and Hjoberg, M. (2019). *Onboarding: Getting new hires off to a flying start*. Bingley, UK: Emeral Publishing.
134. Harzing, A. and Van Ruysseveldt, J. (Eds.). (2010). *International human resource management*. SAGE Publications Ltd.: London.
135. Hawi, R. O., Alkhodary, D., and Hashem, T. (2015). Managerial competencies and organizations performance. *International Journal of Management Sciences*, *5*(11), 723-735.
136. Heath, J. R., and McCann, L. (2021). *Leadership lessons untold: A new history of Robert McNamara's World Bank*. *Leadership*, *0*(0), 1-22.
137. Hedlund, G. (1994). A model of knowledge management and the N-form corporation. *Strategic Management Journal*, (15), 73-90.
138. Hemphill, L., and Begel, A. (2011, April). Not seen and not heard: Onboarding challenges in newly virtual teams. *Microsoft Research MSR-TR-2011-136.* Retrieved April 14, 2022 from https://www.microsoft.com/en-us/research/publication/not-seen-and-not-heard/
139. Hendijani, R., and Sohrabi, B. (2019). The effect of humility on emotional and social competencies: The mediating role of judgment. *Cogent Business & Management*, *6*(1), 1-16.
140. Heponiemi, T., Kaihlanen, A. M., Kouvonen, A., Leemann, L., Taipale, S., and Gluschkoff, K. (2022). The role of age and digital competence on the use of online health and social care services: A cross-sectional population-based survey. *Digital Health, 8.*
141. Hetig, E. (2019). Wyzwania dla zarządzania zasobami ludzkimi – pokolenie „Y" i „Z" na rynku pracy. *Przegląd Nauk Ekonomicznych*, (32/19).
142. Hogan Assessments. (2018). *Bob Hogan discusses the importance of humility in leaders*. Retrieved from https://asystems.as/the-importance-of-humility-in-leadership-interview-with-dr-robert-hogan/.
143. Holsapple, C. W., and Joshi, K. D. (2004). A formal knowledge management ontology: Conduct, activities, resources, and influences. *Journal of the American Society for Information Science and Technology*, *55*(7), 593-612.
144. Holzer, R. (2022). Automation, jobs, and wages. In Z. Qurreshi, Ch. Woo (Eds.), *Shifting paradigms: Growth, finance, jobs, and inequality in the digital economy*. Washington: The Brookings Institution.
145. Hozer, J., and Doszyń, M. (2004). *Ekonometria skłonności*. Warszawa: Wydawnictwo Naukowe PWN.
146. Huselid, M. A., and Barnes, J. E. (2003). *Human capital measurement systems as a source of competitive advantage* (Working paper). Boston: Harvard Business School.
147. Huselid, M. A., and Becker, B. E. (2011). Bridging micro and macro domains: Workforce differentiation and strategic human resources management. *Journal of Management*, 37:2.
148. Huseman, R. C., and Goodman, J. P. (1999). *Leading with knowledge: The nature of competition in the 21st century*. London: Sage Publication.
149. Hyder, A. S., and Abraha, D. (2008). Institutional factors and strategic alliances in Eastern and Central Europe. *Baltic Journal of Management*, *3*(3).
150. Iljin, E. P. (2009). *Psihologiya tvorchestva, kreativnosti, odarennost*i. SPb. Piter.
151. Ingham, J. (2015). *Strategic human capital management: Creating value through people*. Amsterdam: Elsevier, Butterworth-Heinemann.
152. Jaklik, A., and Łaguna, M. (2015). Zaufanie w organizacji. Analiza sposobów ujęcia i modeli teoretycznych. *Psychologia Społeczna*, *4*(35).
153. Jakubowski, M., and Masiukiewicz, A. (2018). Rynek pracy usług w IT– przegląd. *Zeszyty Naukowe Uczelni Vistula*, *59*(2).

154. Jari, K. -O., and Lauraéus, T. (2019). Analysis of 2017 Gartner's three megatrends to thrive the disruptive business, technology trends 2008-2016, dynamic capabilities of VUCA and foresight leadership tools. *Advances in Technology Innovation*, *4*(2), 105-115. Retrieved from https://ojs.imeti.org/index.php/AITI/article/view/2521/783
155. Jashapara, A. (2006). *Zarządzanie wiedzą.* Warszawa: PWE.
156. Jesus, L., and Rosemann, M. (2017). *The future BPM: Seven opportunities to become the butcher and not the Turkey*. Retrieved from https://www.researchgate.net/publication/335310058_The_Future_BPM_Seven_Opportunities_to_Become_the_Butcher_and_not_the_Turkey
157. Jokiel, G. (2008). Projekt jako szczególny rodzaj procesu. In S. Nowosielski (Eds.), *Procesy i projekty logistyczne* (pp. 96-124). Wrocław: Wydawnictwo Uniwersytetu Ekonomicznego.
158. Jooss, S., Burbach. R., and Ruël, H. (2019). Examining talent pools as a core talent management practice in multinational corporations. *The International Journal of Human Resource Management*. doi: 10.1080/09585192.2019.1579748
159. Juchnowicz, M. (2010). *Zarządzanie przez zaangażowanie. Koncepcja. Kontrowersja. Aplikacje*. Warszawa: PWE.
160. Juchnowicz, M. (2014a). *Satysfakcja zawodowa pracowników – kreator kapitału ludzkiego.* Warszawa: PWE.
161. Juchnowicz, M. (Ed.). (2014b). *Zarządzanie kapitałem ludzkim. Procesy – narzędzia – aplikacje*. Warszawa: PWE.
162. Juruś, D. (2015). *Pokora – początek mądrości*. Retrieved from http://blog.pafere.org/pokora-poczatek-madrosci/
163. Kabwe, C., and Tripathi, S. (2020). My talent or yours? A labour process analysis of talent management in practice. *Competition & Change*, *24*(2), 178-199.
164. Kahn, R. L., and Katz, D. (1952, December). *Leadership practices in relation to productivity and morale*. Institute for Social Research University of Michigan.
165. Kannan, K. S. P. N., and Garad, A. (2021). Competencies of quality professionals in the era of industry 4.0: Acase study of electronics manufacturer from Malaysia. *International Journal of Quality & Reliability Management*, *38*(3), 839-871. doi.org/10.1108/IJQRM-04-2019-0124
166. Kaplan, D. E. (2022). Simulation, gaming, and programming in education. *Creative Education, 13*(1).
167. Karaszewski, R., and Lis, A. (2014). Wewnątrzorganizacyjne uwarunkowania rozwoju kluczowych obszarów pozytywnego potencjału organizacji. In P. Wachowiak, S. Winch (Eds.), *Granice w zarządzaniu kapitałem ludzkim* (pp. 182-198). Warszawa: Oficyna Wydawnicza SGH.
168. Karoliny, Z., Farkas, F., and Poor, J. (2009). In focus: Hungarian and Central Eastern European characteristics of human resource management – an international comparative survey. *Journal for East European Management Studies*, *14*(1).
169. Kaufman, B. E. (2015). The RBV theory foundation of strategic HRM: Critical flaws, problems for research and practice, and an alternative economics paradigm. *Human Resource Management Journal*, doi: 10.1111/1748-8583.12085
170. Kawka, T. (2010). Dobór pracowników. In T. Listwan (Ed.), *Zarządzanie kadrami*. Warszawa: C.H. Beck.
171. Kaźmierczak, D., Ropski, J., Wasiuta, O., and Zakrzewski, W. (Eds.). (2021). *Edukacja w świecie VUCA. Charakterystyka środowiska bezpieczeństwa.* Kraków: Libron – Filip Lohner.
172. Kearns, P. (2010). *HR strategy: Creating business strategy with human capital*. Amsterdam: Elsevier.
173. Kelley, K., Clark, B., Brown, B., and Sitzia, J. (2003). Good practice in the conduct and reporting of survey research. *International Journal for Quality in Health Care*, 15(3), 261-266. doi.org/10.1093/intqhc/mzg031
174. Kellner, H. (2000). *Projekte konfliktfrei führen. Wie Sie ein erfolgreiches Team aufbauen*. München: Carl Hanser Verlag.

175. Kessels, J., and Kwakman, K. (2007). Interface: Establishing knowledge links between higher vocational education and business. *Higher Education*, *54*(5), 689-703. https://doi.org/10.1007/s10734-006-9018-4
176. Kessels McGuinness, S., and Ortiz, L. (2016). Skill gaps in the workplace: Measurement, determinants and impacts. *Industrial Relations Journal*, *47*(3), 253-278.
177. Ketter, P. (2010). Six trends that will change workplace learning forever. *Training and Development*, *64*(12), 34-40.
178. Kianto A., Sáenz J., and Aramburu N. (2017). Knowledge-based human resource management practices, intellectual capital and innovation. *Journal of Business Research*, *81*(C), 11-20.
179. Kiełtyka, L. (2017). Menedżer nowej ery jako lider współczesnych organizacji. In E. Bojar (Ed.), *Refleksje przedstawicieli nauk o zarządzaniu i praktyków*. Lublin: TNOiK Dom Organizatora.
180. Kieżun, W. (1980). *Podstawy organizacji i zarządzania*. Książka i Wiedza.
181. Kim, D. H. (1998). The link between individual and organizational learning. *The Strategic Management of Intellectual Capital*, *6*(1), 41-62.
182. Kitano, A., Saenz, J., and Aramburu, N. (2017). Knowledge-based human resource management practices, intellectual capital and innovation. *Journal of Business Research*, *81*.
183. Klein, H. J., and Polin, B. (2012). Are organizations onboard with best practice onboarding? In I.C. Wanberg (Ed.), *The Oxford handbook of socialization*. New York: Oxford University Press.
184. Klincewicz, K. (2016). Zarządzanie, organizacje i organizowanie – przegląd perspektyw teoretycznych. In K. Klincewicz (Ed.), *Zarządzanie, organizacje i organizowanie – przegląd perspektyw teoretycznych*. Wydawnictwo Naukowe Wydziału Zarządzania Uniwersytetu Warszawskiego. doi.org/10.7172/978-83-65402-29-5.2016.wwz.9
185. Kłusek-Wojciszke, B., and Gułaś, M. (2014). Osobowość menedżera jako predyktor stylu kierowania personelem. *Studia i Materiały Instytutu Transportu i Handlu Morskiego,* (11), 75-85.
186. Kmieciak, R. (2021). Trust, knowledge sharing, and innovative work behavior: Empirical evidence from Poland. *European Journal of Innovation Management*, *24*(5), 1832-1859. doi.org/10.1108/EJIM-04-2020-0134
187. Kobushko, I., Kobushko, I., Starinskyi, M., and Zavalna, Z. (2020). Managing team effectiveness based on key performance indicators of its members. *International Journal for Quality Research*, *14*(4), 1245-1260. doi.org/10.24874/IJQR14.04-17
188. Kok, J., and Van den Heuvel, S. C. (2019). *Leading in a VUCA world.* doi.org/10.1007/978-3-319-98884-9
189. Koon, V., and Ho, T. (2021). Authentic leadership and employee engagement: The role of employee well-being'. *Human Systems Management*, *40*(1), 81-92. doi: 10.3233/HSM-200943
190. Koster, F., and Wittek, R. (2016). Competition and constraint: Economic globalization and human resource practices in 23 European countries. *Employee Relations*, *38*(2.)
191. Kostera, M. (2011). *Wstęp. Badania etnograficzne organizacji*. In M. Kostera (Ed.), *Etnografia organizacji. Badania polskich firm i instytucji*. Sopot: Gdańskie Wydawnictwo Psychologiczne.
192. Kostner, J. (1999). *Virtual leadership: Secrets from the round table for the multi-site manager*. New York: Warner Books.
193. Kotarbiński, T. (2019). *Traktat o dobrej robocie*. Łodź: Wydawnictwo Uniwersytetu Łódzkiego.
194. Koumas, M., Dossou, P., and Didier, J. (2021). Digital transformation of small and medium sized enterprises production manufacturing. *Journal of Software Engineering and Applications*, *14*, 607--630. doi: 10.4236/jsea.2021.1412036
195. Kowalczyk, A., and Nogalski, B. (2007). *Zarządzanie wiedzą. Koncepcja i narzędzia*. Warszawa: Difin.
196. Kowalik, I., and Baranowska-Prokop, E. (2013). Determinanty powstawania i motywy ekspansji polskich przedsiębiorstw wcześnie umiędzynarodowionych. *Gospodarka Narodowa. The Polish Journal of Economics*, *263*, 41-64.

197. Koźmiński, A. K., Jemielniak, D., and Latusek-Jurczak, D. (2014). *Zasady zarządzania*. Warszawa: Wolters Kluwer.
198. Kraemer, K. L. (Ed.). (1991). *The information systems research challenge survey research methods* (vol. III). Harvard University Graduate School of Business Administration.
199. Krok, E. (2009). Zarządzanie wiedzą – zestawienie elementów koncepcji. *Zeszyty Naukowe Uniwersytetu Szczecińskiego,* (23), 179-191.
200. Kshetri, N. (2010). Business perceptions of regulative institutions in Central and Eastern Europe. *Baltic Journal of Management*, *5*(3), 356-377.
201. Kuhn, K. M., and Galloway, T. L. (2019). Expanding perspectives on gig work and gig workers. *Journal of Managerial Psychology*, *34*(4).
202. Kuzel, M. (2013). Kapitał intelektualny organizacji i wewnątrzkorporacyjny transfer zasobów a konkurencyjność polskich przedsiębiorstw – inwestorów zagranicznych. In W. Karaszewski (Ed.), *Aktywność inwestycyjna polskich przedsiębiorstw za granicą. Czynniki i skutki.* Warszawa: Polskie Wydawnictwo Ekonomiczne.
203. Kuźniarka, A., Stańczyk, I., and Stuss, M. M. (2021). Wizerunek organizacji w sieci jako element employer brandingu. In I. Mendryk (Ed.), *Zarządzanie zasobami ludzkimi w nowej przestrzeni fizycznej i społecznej*. Warszawa: Difin.
204. Lacey, M. Y., and Groves, K. (2014), Talent management collides with corporate social responsibility: Creation of inadvertent hypocrisy. *Journal of Management Development*, *33*(4), 399-409.
205. Lachiewicz, S., and Matejun, M. (2017). Ewolucja nauk o zarządzaniu. In A. Zakrzewska-Bielawska (Ed.), *Podstawy zarządzania. Teoria i ćwiczenia*. Warszawa: Wydawnictwo Nieoczywiste.
206. Langmaack, B. (2004). *Sociale Kompetenz. Verhalten steuert den Erfolg*. Weinheim: Beltz.
207. Laohavichien, T., Fredendall, L., and Cantrell, R. (2009). The effects of transformational and transactional leadership on quality improvement. *The Quality Management Journal*, *16*(2), 7-24.
208. Latusek-Jurczak, D. (2014). *Polskie przedsiębiorstwa w Dolinie Krzemowej. Raport z badań*. Warszawa: Poltext.
209. Leach, M., MacGregor, H., Scones, I., and Wilkinson, A. (2021). Post-pandemic transformations. How and why COVID-19 requires us to rethink development. *World Development, 138*(2), 1-11.
210. Lee, K., and Ashton, M. C. (2004). Psychometric properties of the HEXACO Personality Inventory. *Multivariate Behavioral Research, 39*, 329-358.
211. Leits, N. S. (1976). Ob izuchenii problemy sklonnostey v rusle idey B. M. Teplov. *Voprosy Psihologii*, (5).
212. Leskiw, S., and Singh, P. (2007). Leadership development: Learning from best practices. *Leadership and Organization Journal*, *28*(5).
213. Lichtarski, J. (2004). O relacji między podejściem funkcjonalnym i procesowym w zarządzaniu. In M. Romanowska, M. Trocki (Eds.), *Podejście procesowe w zarządzaniu* (vol. 1, p. 189). Warszawa: Oficyna Wydawnicza SGH.
214. Lichtarski, J. (2010). Profile orientacji w zarządzaniu przedsiębiorstwem i kształtujące je czynniki. In H. Jagoda, J. Lichtarski (Eds.), *Kierunki i dylematy rozwoju nauki i praktyki zarządzania przedsiębiorstwem*. Wrocław: Wydawnictwo Uniwersytetu Ekonomicznego.
215. Listwan, T. (1995). *Kształtowanie kadry menedżerskiej firmy*. Wrocław: Kadry.
216. Listwan, T. (2005). Zarządzanie talentami – wyzwanie współczesnych organizacji. In S. Borkowska (Ed.), *Zarządzanie talentami* (pp. 21-26). Warszawa: IPiSS.
217. Listwan, T. (2011). Sprawne kierowanie zespołem projektowym. In P. Bohdziewicz (Ed.), *Efektywność gospodarowania kapitałem ludzkim*. Łódź: Wydawnictwo Uniwersytetu Łódzkiego.
218. Listwan, T., Pocztowski, A., and Stor, M. (2009). *Human resources management in Poland.* In M. J. Morley, N. Heraty, S. Michailova (Eds.), *Human resources management in Eastern and Central Europe*.
219. Listwan, T., and Sierpowski, T. (2016). Szkolenia pracowników z wykorzystaniem outsourcingu. In T. Listwan, Ł. Sułkowski (Eds.), *Metody i techniki zarządzania zasobami ludzkimi* (pp. 27-51). Warszawa: Difin.

220. Litke, H. D. (2007). *Projektmanagement. Methoden, Techniken, Verhaltensweisen, evolutionäres Projektmanagement*. München: Hanser.
221. Littauer, F. (1997). *Osobowość plus jako zrozumienie innych przez zrozumienie siebie.* Warszawa: Oficyna Wydawnicza Logos.
222. Lockwood, N. R. (2006). Talent management: Driver for organizational success. *HR Magazine*, *51*(6), 1-11.
223. Lula, P., Wiśniewska, S., and Wójcik, K. (2019). Analysis of the demand for competencies on the Polish labour market in the context of industry 4.0. In M. Papież, S. Śmiech (Eds.), *The 13th professor Aleksander Zelias International Conference on modelling and forecasting of socio-economic phenomena: Conference proceedings* (pp. 124-131). Warszawa: Wydawnictwo C.H. Beck.
224. Lundvall, B. A., and Johnson, B. (1994). The learning economy. *Journal of Industry Studies*, *1*(2), 23-42.
225. Lundy, O., and Cowling, A. (2000). *Strategiczne zarządzanie zasobami ludzkimi*. Kraków: Oficyna Ekonomiczna.
226. Macfarlane, F., Duberley, J., Fewtrell, C., and Powell, M. (2012). Talent management for NHS managers: Human resources or resourceful humans? *Public Money & Management*, *32*(6), 445--452.
227. Machnik, A. (2002). *Sekrety sprawnego działania*. Warszawa: Wydawnictwo Studio EMKA.
228. Maciejewski, A. (2017). O pokorze. *My Company Polska.* Retrieved from https://mycompanypolska.pl/artykul/felieton-o-pokorze/1334
229. Mącik, D. (2019). *W pułapce schematów? Wczesne nieadaptacyjne schematy Jeffreya Younga a funkcjonowanie psychospołeczne osób dorosłych*. Warszawa: Scholar.
230. Mahajan, H. K. (2017). The roles of knowledge management for the development of oranizations. *Journal of Scientific Achievements*, *2*(2), 1-27.
231. Mahesh, V., and Kumar, S. (2020). Work from home experiences during COVID-19 pandemic among IT employees. *The Journal of Contemporary Issues in Business and Government*, *2*(26).
232. Maister, D. H. (1997). *Managing the professional service firm*. New York: Free Press Paperback.
233. Maldonado, T., Vera, D., and Sprangler, W. D. (2021). Unpacking humility. An examination of leader personality and what it matter. *Business Horizons*. Retrieved from https://www.sciencedirect.com/science/article/abs/pii/S0007681321000343?via%3Dihub
234. Maqueira, J. M., Bruque, S., and Uhrin, A. (2019). Talent management: two pathways to glory? Lessons from the sports arena. *Employee Relations*, *41*(1), 34-51.
235. Marczewska, M., and Jaskanis, A. (2018). Źródła wiedzy i kompetencje w zakresie zdobywania wiedzy firm zielonych technologii w Polsce. *Acta Universitatis Lodziensis. Folia Oeconomica*, *4*(336), 173-193. doi:10.18778/0208-6018.336.11
236. Martz, B., Hughes, J., and Braun, F. (2017). Creativity and problem-solving: Closing the skills gap. *Journal of Computer Information Systems*, *57*(1), 39-48.
237. Masi, R. J., and Cooke, R. A. (2000). Effects of transformational leadership on subordinate motivation, empowering norms and organizational productivity. *International Journal of Organizational Analysis*, *8*(1), 16-47.
238. Mathisen, G. E., Einarsen, S., and Mykletun, R. (2012). Creative leaders promote creative organizations. *International Journal of Manpower*, *33*(4).
239. Matuszewska, A. (2012). Employer branding – nowe trendy w obszarze HR. *Młoda Psychologia*.
240. Mayo, A. (2012). *Human resources or human capital? Managing people as assets*. Routlege: New York.
241. Mayrhofer, W., Brewster, C., Morley, M. J., and Ledolter, J. (2011). Hearing a different drummer? Convergence of human resource management in Europe — a longitudinal analysis. *Human Resource Management Review*, *21*(1).
242. McDermott, R. (1999). Why information technology inspired but cannot deliver knowledge management. *California Management Review*, *41*(4), 103-117.

243. McGuinness, S., and Ortiz, L. (2016). Skill gaps in the workplace: Measurement, determinants and impacts. *Industrial Relations Journal*, *47*(3), 253-278.
244. McKinsey&Company. (2018). *Raport: Cyfrowi Polacy – przyśpieszenie e-rewolucji*. Retrieved from https://www.mckinsey.com/pl
245. Melnikas, B., Baršauskas, P., and Kvainauskaitė, V. (2006). Transition processes and integral cultural space development in Central and Eastern Europe: Main problems and priorities. *Baltic Journal of Management*, *1*(2).
246. Mensah, J. K. (2018, June 8). Talent management and employee outcomes: A psychological contract fulfilment perspective. *Public Organization Review*. doi: 10.1007/s10551-017-3543-1
247. Meyers, C., Van Woerkom, M., and Dries, N. (2013). Talent – innate or acquired? Theoretical considerations and their implications for talent management. *Human Resource Management Review*, *23*(4), 305-321.
248. Michaels, E., Handfield-Jones, H., and Axelrod, B. (2001). *The war for talent*. Harvard Business School Press.
249. Mière, T. P. (2012). Les TIC dans l'entreprise: entre urgence et réactivité. *Communication et Organisation*, (29), 196-205.
250. Mikuła, B. (2006). *Organizacje oparte na wiedzy*, Kraków: Wydawnictwo Akademii Ekonomicznej w Krakowie.
251. Minbaeva, D., and Collings, D. G. (2012). Seven myths of global talent management. *The International Journal of Human Resource Management*, *24*(9), 1762-1776.
252. Miś, A., and Pocztowski, A. (2008). Istota talentu i zarządzania talentami. In A. Pocztowski (Ed.), *Zarządzanie talentami w organizacji* (pp. 36-62). Warszawa: Oficyna Wolters Kluwer Business.
253. Moe, N. B., Stray, V., and Goplen, M. R. (2020). *Studying Onboarding in distributed software teams: A case study and guidelines* (EASE '20: Proceedings of the Evaluation and Assessment in Software Engineering, April 2020, pp. 150-159). doi: 10.1145/3383219.3383235
254. Morawski, M. (2006) *Zarządzanie wiedzą*. Wrocław: Wydawnictwo Akademii Ekonomicznej we Wrocławiu.
255. Morgan, A., Sibson, R., and Jackson, D. (2022). Digital demand and digital deficit: Conceptualising digital literacy and gauging proficiency among higher education students. *Journal of Higher Education Policy and Management,* 1-18.
256. Morley, M. J., Heraty, N., and Michailova, S. (Eds.). (2009). *Human resources management in Eastern and Central Europe*. London, New York: Routledge.
257. Morris, J. A., Brothertidge, C. M., and Urbanski, J. C. (2005). Bringing humility to leadership. *Human Relations, 58*, 1323-1350.
258. Morte-Nadal, T., and Esteban-Navarro, M. A. (2022). Digital competences for improving digital inclusion in e-government services: A mixed-methods systematic review protocol. *International Journal of Qualitative Methods, 21.*
259. Moszkowicz, M. (2014). Współczesne orientacje rozwojowe wiedzy w zarządzaniu. *Zeszyty Naukowe Politechniki Śląskiej. Organizacja i Zarządzanie*, *73*, 429-440.
260. Mueller, J. S., and Kamdar, D. (2011). Why seeking help from teammates is a blessing and a curse: A theory of help seeking and individual creativity in team contexts. *Journal of Applied Psychology, 96*, 263-276. doi: 1037/a0021574
261. Mumford, M. D., and Licuanan, B. (2004). Leading for innovation: Conclusions, issues and directions. *The Leadership Quarterly*, (15), 163-171.
262. Nemeth, C. J., and Kwan, J. L. (1985). Originality of word associations as a function of majority vs. minority influence. *Social Psychology Quarterly*, *48*(3), 277-282. doi.org/10.2307/3033688
263. Nielson, R., and Marrone, J. A. (2018). *Humility.* Our current understanding of the construct and its role in organizations. *International journal of Management Reviews, 20*, 805-824.
264. Nikandrou, I., Apospori, E., and Papalexandris, N. (2005). Changes in HRM in Europe: A longitudinal comparative study among 18 European countries. *Journal of European Industrial Training, 29*.

265. Nonaka, I., and Takeuchi, H. (1995). *The knowledge – creating company. How Japanese companies create the dynamic of innovation*. New York: Oxford University Press.
266. Norveel, J., Gonzalez, R., and Presthus, W. (2022). Basic digital competence in Norwegian banking. *Procedia Computer Science, 196.*
267. Nowak, S. (1973). *Teorie postaw*. Warszawa: PWN.
268. Nowosielski, S. (2013). Społeczne aspekty doskonalenia procesów w organizacji projektowej. In T. Listwan, Ł. Sułkowski (Eds.), *Ekonomiczne i sprawnościowe problemy zarządzania projektami*, (vol. 2, p. 137). Łódź: Wydawnictwo SAN.
269. Nowosielski, S. (2017). Procesy a projekty w organizacji. *Ekonomika i Organizacja Przedsiębiorstwa*, *12*(814), 140-150.
270. Nowosielski, S. (2018). Procesy i projekty w organizacji. O potrzebie i sposobach współdziałania. *Studia i Prace Kolegium Zarządzania i Finansów*, (169), 109-129.
271. Nowosielski, S. (Eds.). (2008). *Procesy i projekty logistyczne*. Wrocław: Wydawnictwo Uniwersytetu Ekonomicznego.
272. Nunez-Canal, M., de Obesso, M., and Perez-Riviero, C. A. (2022). New challenges in higher education: A study of the digital competence of educators in Covid times. *Technological Forecasting and Social Change, 174.*
273. O'Connor, E. P., and Crowley-Henry, M. (2017, April 17). Exploring the relationship between exclusive talent management. Perceived organizational justice and employee engagement: Bridging the literature. *Journal of Business Ethics*. doi 10.1007/s10551-017-3543-1
274. Oberlander, M., Beinicke, A., and Bipp, T. (2020). Digital competencies: A review of the literature and applications in the workplace. *Computers & Education, 146.*
275. Obłój, K. (1998). *Strategia organizacji*. Warszawa: PWE.
276. Oczkowska, R., Wiśniewska, S., and Lula, P. (2017). Analysis of the competence gap among vocational school graduates in the area of smart specialization in Poland. *International Journal for Quality Research*, *11*(4), 945-966.
277. Oleksyn, T. (1997). *Dynamiczny rozwój zawodowy*. Warszawa: Wydawnictwo Naukowe PWN.
278. Oleksyn, T. (1999). Zarządzanie kompetencjami w organizacji. In A. Ludwiczyński (Ed.), *Szkolenie i rozwój pracowników a sukces firmy* (Materiały konferencyjne). Warszawa: Polska Fundacja Promocji Kadr, Polskie Stowarzyszenie Zarządzania Kadrami.
279. Oleksyn, T. (2014). *Zarządzanie zasobami ludzkimi w organizacji*. Publisher Wolters Kluwer. Warszawa.
280. Olszańska, A. (2014). Źródła pozyskiwania wiedzy i ocena jej poziomu przez producentów żywca w świetle badań ankietowych. *Roczniki Naukowe Stowarzyszenia Ekonomistów Rolnictwa i Agrobiznesu*, *16*(4), 225-240.
281. Ott, D. L., Tolentino J. L., and Michailova, S. (2018). Effective talent retention approaches. *Human Resource Management International Digest*, *26*(7), 16-19.
282. Ou, A. Y., Tusi, A. S., Kinicki, A. J., Waldman, D. A., Xiao, Z., and Song L. J. (2014). Humble CEO connections to top management team integration and middle managers responses. *Administrative Science Quarterly*, *59*, 34-72.
283. Owens, B. P., Johnson, M. D., and Mitchell, T. R. (2013). Expressed humility in organizations: Implications for performance, teams, and leadership. *Organization Science*, *24*(5), 1517-1538.
284. Panda, S., and Sahoo, S. K. (2015). Strategic talent development interventions: An analysis. *Industrial and Commercial Training*, *47*(1), 15-22.
285. Pandey, S. (2020). Exploring the role of Artificial Intelligence (AI) in transforming HR functions: An empirical study in the Indian context. *International Journal of Scientific Research and Engineering Development*.
286. Patalas-Maliszewska, J., and Kłos, S. (2017). *Model zarządzania wiedzą ukrytą w przedsiębiorstwie produkcyjnym na podstawie wyników badań z polskich i niemieckich przedsiębiorstw*. In R. Knosala (Ed.). *Innowacje w zarządzaniu i inżynierii produkcji* (tom II). Opole: Oficyna Wydawnicza Polskiego Towarzystwa Zarządzania Produkcją.

287. Pawlak, M. (2007). *Zarządzanie projektami*. Warszawa: Wydawnictwo Naukowe PWN.
288. Peersman, G. (2014). Methodological briefs impact evaluation no. 10 overview: Data collection and analysis methods in impact evaluation. Retrieved from https://www.unicef-irc.org/publications/pdf/brief_10_data_collection_analysis_eng.pdf
289. Picker, S., Ruhnke, A., and Leker, J. (2009). Developing knowledge management – what makes the success? *International Journal of Technology Management*, *45*(3/4), 380-389.
290. Piech, K. (2009). *Wiedza i innowacje w rozwoju gospodarczym: w kierunku pomiaru współczesnej roli państwa*. Warszawa: Instytut Wiedzy i Innowacji.
291. Pluta, A. (2016). Przemiany w pracy współczesnych pracowników i ich konsekwencje. *Szkoła – Zawód – Praca*, *12*, 171-182.
292. Pluta, A. (2020). Błąd to porażka i organizacyjne tabu czy powód do uczenia się? In R. Tomaszewska (Ed.), *Praca i kariera w warunkach nowego milenium. Implikacje dla edukacji* (pp. 220--230). Wydawnictwo Naukowe UKW.
293. Pluta, A., and Rudawska, A. (2021). Błąd w organizacji – sposoby postrzegania i radzenia sobie z nim. In I. Mendryk (Ed.), *Zarządzanie zasobami ludzkimi w nowej przestrzeni fizycznej i społecznej* (1st ed., pp. 525-539). Warszawa: Difin.
294. Pocztowski, A. (Ed.). (2002). *Międzynarodowe zarządzanie zasobami ludzkimi.* Warszawa: Wydawnictwo Oficyna Ekonomiczna.
295. Pocztowski A. (Ed.). (2015.) *Zarządzanie zasobami ludzkimi na rynkach międzynarodowych*. Warszawa: Wolters Kluwer Polska.
296. Pocztowski, A. (Ed.). (2007). *Funkcja personalna. Diagnoza i kierunki zmian*. Kraków: Wydawnictwo Uniwersytetu Krakowskiego.
297. Polany, M. (1967). *The tacit knowledge dimension*. London: Routledge & Kegan Paul.
298. Poór, J., Engle, A., and Brewster, C. (Ed.). (2017). *HRM in transition-practices of MNC-subsidiaries in Central and Eastern Europe, Russia and Kazakhstan (2015-2016)*. Komárno: Selye University.
299. Potsangbam, C. (2018). Adaptive performance in VUCA era – where is research going? *International Journal of Management*, *8*(6), 99-108. Retrieved from http://www.iaeme.com/IJM/index.asp99http://www.iaeme.com/ijm/issues.asp?JType=IJM&VType=8&IType=6JournalImpactFactor
300. Probst, G., Raub, S., and Romhardt, K. (2002). *Zarządzanie wiedzą w organizacji*. Kraków: Oficyna Ekonomiczna.
301. Pruis, E. (2011). The five key principles for talent development. *Industrial and Commercial Training*, *43*(4), 206-216. doi: 10.1108/00197851111137825
302. Przybyła, H. (2005). Adam Smith – prekursor etyki gospodarczej. *Studia Ekonomiczne. Zeszyty Naukowe Uniwersytetu Ekonomicznego w Katowicach*, (35).
303. 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*, 1-16. doi: 10.3233/HSM-201118
304. Ratajczak, Z. (1988). *Niezawodność człowieka w pracy. Studium psychologiczne*. Warszawa: Wydawnictwo Naukowe PWN.
305. Raven, J. (1984). *Competence in modern society: Its identification, development and release*. London: H.K. Lewis.
306. Raworth, K., (2021). *Ekonomia obwarzanka. Siedem sposobów myślenia o ekonomii XXI wieku.* Warszawa: Wydawnictwo Krytyki Politycznej.
307. Reason, J. (2017). *The human contribution: Unsafe acts, accidents and heroic recoveries*. Taylor & Francis.
308. Reiter-Palmon, R., and Illies, J. J. (2004). Leadership and creativity: Understanding leadership from a creative problem-solving perspective. *The Leadership Quarterly*, (15), 55-7756.
309. Riaz, A., and Haider, M. H. (2010). Role of transformational and transactional leadership on job satisfaction and career satisfaction. *BEH – Business and Economic Horizons*, *1*(1), 29-38.

310. Rizza, C. (2014). Digital competences. In A.C. Michalos (Ed.), *Encyclopedia of quality of life and well-being researc*h (pp. 1614-1619). Dordrecht: Springer. doi: 10.1007/978-94-007-0753-5_731
311. Rogozińska-Pawełczyk, A. (2014). Kształtowanie postawy zaangażowania organizacyjnego. *Zarządzanie Zasobami Ludzkimi*, *2*(97).
312. Romanowska, M., and Trocki, M. (Eds.). (2004). Wstęp. In M. Romanowska, M. Trocki (Eds.), *Podejście procesowe w zarządzaniu* (t. 1, pp. 88-119). Warszawa: Wydawnictwo SGH.
313. Rudolf, S. (2009). Sposoby pozyskiwania zasobów intelektualnych pracowników w nowoczesnym przedsiębiorstwie. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, (43).
314. Rzempała, J. (2017). *Kompetencje indywidualne i organizacyjne w zarządzaniu projektami – ujęcie systemowe. Zeszyty Naukowe Politechniki Śląskiej. Seria: Organizacja i Zarządzanie*, 114(1993). Retrieved January 25, 2022 from https://www-arch.polsl.pl/wydzialy/ROZ/ZN/Documents/ z114/33_rzempa%C5%82a _gotowe.pdf
315. Saddozai, S. K., Hui, P., Akram, U., Khan, M. S., and Memon, S. (2017). Investigation of talent, talent management, its policies and its impact on working environment. *Chinese Management Studies*, *11*(3), 538–554. doi: 10.1108/CMS-10-2016-0206
316. Sahadev, S., and Demirbag, M. (2010). A comparative analysis of employment practices among post-communist and capitalist countries in South Eastern Europe. *Employee Relations*, *32*(3).
317. Saltos-Rivas, R., Novoa-Hernandez, P., and Rodriguez, R. S. (2022). How reliable and valid are the evaluations of digital competence in higher education: A systematic mapping study. *Sage Open, 12*(1).
318. Sánchez, A., Lagunes, A., Torres, C. A., Judikis, J. C., and López, F. (2019). Exploratory factor analysis of a digital competency questionnaire for research. In P. Ruiz, V. Agredo-Delgado (Eds.), *Human-computer interaction. HCI-COLLAB 2019. Communications in Computer and Information Science*, (1114), 189-210.
319. Sánchez-Caballé, A., Gisbert-Cervera, M., and Esteve-Mon, F. (2020). The digital competence of university students: A systematic literature review. *Aloma: Revista de Psicologia, Ciències de l'educació i de l'esport Blanquerna*, *38*(1), 63-74.
320. Sansone, C., and Thoman, D. B. (2005). Interest as the missing motivator in self-regulation. *European Psychologist*, *10*, 175-186.
321. Sarka, P., Heisig, P., Caldwell, N. H. M., Maier, A. M., and Ipsen, Ch. (2019). Future research on information technology in knowledge management. *Knowledge and Process Management*, *26*(3). 277-296. doi:10.1002/kpm.1601
322. Scullion, H., Collings, D. G., and Caligiuri, P. (2010). Global talent management. *Journal of World Business*, *45*(2), 105-8.
323. Schein, E. H. (1992). *Organizational culture and leadership*. San Francisco, CA: Jossey-Bass.
324. Schmidt, C., Mansson, S., and Dolles, H. (2013). Managing talents for global leadership positions in MNCs: Responding to the challenges in China. *Asian Business & Management*, *12*(4), 477-496. doi: 10.1057/abm.2013.11
325. Schroeder, J. (2010). *Międzynarodowe zarządzanie zasobami ludzkimi*. Poznań: Wydawnictwo Uniwersytetu Ekonomicznego w Poznaniu.
326. Schwarz, N., Tanur, J. M., and Tourangeau, R. (Eds.). (1999). *Cognition and survey research*. New York: John Wiley and Sons.
327. Senge, P. M. (1990). The leader's new work: building learning organizations. *Sloan Management Review.*
328. Shaftesbury, A. A. C. (1999). *The Shaftesbury Collection* (vol. 2). *Characteristics of men, manners, opinions, times*. Bristol: Thoemmes Press.
329. Sheehan, M. (2012). Developing managerial talent: Exploring the link between management talent and perceived performance in multinational corporations (MNCs). *European Journal of Training and Development*, *36*(1), 66-85.

330. Shet, S. V. (2020). Strategic talent management – contemporary issues in international context. *Human Resource Development International*, *23*(1), 98-102. doi: 10.1080/13678868.2019.1650324
331. Shohel, M., Ray, K. K., Tivanski, A. V. et al. (2022). Nanomechanical variability in the early evolution of vertebrate dentition. *Scientific Reports*, *12*, 10203. https://doi.org/10.1038/s41598-022-14157-2
332. Siddiq, F., and Scherer, R. (2019). Is there a gender gap? A meta-analysis of the gender differences in students' ICT literacy. *Educational Research Review*, *27*, 205-217. https://doi.org/10.1016/j.edurev.2019.03.007
333. Sienkiewicz, Ł. (2014). Zarządzanie zasobami ludzkimi w usługach wiedzochłonnych. *Zarządzanie Zasobami Ludzkimi*, *6*(101).
334. Singh, M., and Sharma, M. K. (2014). Bridging the skills gap: Strategies and solutions. *IUP Journal of Soft Skills*, *8*(1), 27-33.
335. Sitarski, K. (2010). The role of information technology systems in knowledge management. *Foundations of Management*, *2*(1), 117-132. doi: 10.2478/v10238-012-0024-9
336. Skowroński, A. (2006). Zrównoważony rozwój perspektywą dalszego postępu cywilizacyjnego. *Problemy Ekorozwoju,* 1(2), 47-57.
337. Skrzypek, E. (2009). *Kapitał ludzki i jego wpływ ma jakość*. Kraków: Outsourcing.
338. Skrzypek, E., and Hofmanm, M. (2010). *Zarządzanie procesami w przedsiębiorstwie*. Warszawa: Wolters Kluwer.
339. Smite, D., and Van Solingen, R. (2015). What's the true hourly cost of offshoring? *IEEE Software,* 33(5).
340. Smith, A. (2020). *Badania nad natura i przyczynami bogactwa narodów*. Warszawa: PWN.
341. Son, J., Bae O. P. J., and Ok, C. (2018, 14 May). Double-edged effect of talent management on organizational performance: The moderating role of HRM investments. *The International Journal of Human Resource Management*. doi.org/10.1080/09585192.2018.1443955
342. Stabryła, A., and Wawak, S. (Eds.). (2014). *Problemy zarządzania organizacjami w społeczeństwie informacyjnym*. Mfiles.pl. Encyklopedia Zarządzania.
343. Stachowska, S. (2018). Zarządzanie wiedzą w praktyce przedsiębiorstw. *Ekonomika i Organizacja Przedsiębiorstwa*, (7), 120-136.
344. Stahl, G. K., Miska, C., Lee, H. J., and De Luque, M. S. (2017.) The upside of cultural differences: Towards a more balanced treatment of culture in cross-cultural management research. *Cross Cultural & Strategic Management*, *24*(1).
345. Stanisławski, R., Lisowska, R. (2014). Skłonność do Open Innovation warunkiem rozwoju MSP w kontekście współpracy z otoczeniem. In A. Stabryła, S. Wawak (Eds.), *Problemy zarządzania organizacjami w społeczeństwie informacyjnym*. Kraków: Mfiles.pl.
346. Stankiewicz, K. (2016, January-March). Postawy pracowników wobec zróżnicowania wiekowego w zespołach i organizacjach. *Edukacja Ekonomistów i Menedżerów, 1*(39).
347. Stanny, M. i Czarnecki, A. (2011). Zrównoważony rozwój – idea, definicje, mierniki. In *Sustainable development of rural areas of green lungs of Poland region. An attempt at empirical analysis* (pp. 13-36). Warszawa: IRWiR.
348. Stavrou, E., Brewster, C. J., and Charalambous, C. (2010). Human resource management and firm performance in Europe through the lens of business systems: Best fit, best practice or both? *The International Journal of Human Resource Management*, *21*(7).
349. Stewart, J., and Rigg, C. (2010). *Learning and talent development*. CIPID.
350. Stibel, J. (2011). Why a great individual is better than a good. *HBR Blog Network*.
351. Stor, M. (2011). *Strategiczne międzynarodowe zarządzanie zasobami ludzkimi*. Wrocław: Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu.
352. Stor, M. (2014). Reconceptualizing strategic international human resources management in pursuing sustainable competitive advantage of MNCs. *Human Resource Management*, *6*(10).

353. Stor, M. (2016). Paradoxical and nonparadoxical oxymora in strategies of competency management – research reflections. *Research Paper of Wrocław University of Economics*, 2(27).
354. 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), 49-74.
355. Stroh, L. K., and Caliguri, P. M. (1998). Increasing global competitiveness through effective people management. *Journal of World Business*, *33*(1).
356. Strojny, M. (2003). *Strategia zarządzania wiedzą w KPMG*. In B. Wawrzyniak (Ed.), *Zarządzanie wiedzą w przedsiębiorstwie* (pp. 179-198). Warszawa: Wydawnictwo Wyższej Szkoły Przedsiębiorczości i Zarządzania.
357. Strukan, E., Nikolić, M., and Sefić, S. (2017). Impact of transformational leadership on business performance. *Technical Gazette*, *24*(2).
358. Stuss, M. M. (2021). *Zarządzanie talentami. Koncepcje, modele i praktyki*. Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego.
359. Svensson, T., Wilk, J., and Aman, K. (2022). Information literacy skills and learning gaps: Students' experiences and teachers' perceptions in interdisciplinary environmental science. *The Journal of Academic Librarianship*, *48.*
360. Syed, M. (2017). *Metoda czarnej skrzynki. Zaskakująca prawda o błędach i naturze sukcesu*. Insignis Media.
361. Szostek, D. (2018). Poczucie sprawiedliwości organizacyjnej a skłonność pracowników do zachowań kontrproduktywnych. *Organizacja i Kierowanie*, *3*(182).
362. Sztabiński, P. B., Sawiński, Z., and Sztabiński, F. (Eds.). (2005). *Fieldwork jest sztuką.* Warszawa: Instytut Filozofii i Socjologii PAN.
363. Tabatabaee, S. A. N., Lakeh, A. A., and Tadi, A. A. (2014). A study of succession planning challenges in governmental organizations. *Kuwait Chapter of Arabian Journal of Business and Management Review, 3*(11.a), 231-238. doi: 10.12816/0018795
364. Tangey, J. P. (2000). Humility: Theoretical perspectives, empirical findings and directions for future research*. Journal of Social and Clinical Psychology, 19*, 70-82.
365. Tannenbaum, R., and Schmidt, W. H. (1958, March-April). How to choose a leadership pattern. *Harvard Business Review*.
366. Tarique, I., Briscoe, D. R., and Schuler, R. R. (2016). *International human resource management: Policies and Practices for Multinational Enterprises*. New York, London: Routledge, Taylor & Francis.
367. Tarique, I., and Schuler, R. (2018). A multi-level framework for understanding global talent management systems for high talent expatriates within and across subsidiaries of MNEs: Propositions for further research. *Journal of Global Mobility*, *6*(1), 79-101.
368. Teichler, U. (1999). Research on the relationships between higher education and the world of work: Past achievements, problems and new challenges. *Higher Education, 38,* 169-190. doi: 10.1023/A:1003761214250
369. Thomas, H., Smith, R. S., and Diez, F. (2013). *Human capital and global business strategy*. New York: Cambridge University Press.
370. Thunnissen, M., Boselie, P., and Fruytier, B. (2013). A review of talent management: Infancy or adolescence? *The International Journal of Human Resource Management*, 24(9), 1744-1761.
371. Tomaszewski, T. (1975). Podstawowe formy organizacji i regulacji zachowania. In T. Tomaszewski (Ed.), *Psychologia*. Warszawa: PWN.
372. Tomaszuk, A. (2014). Organizacje wobec wyzwań XXI wieku. *Przedsiębiorczość i Zarządzanie, XV*, (6, I). Retrieved February 2, 2022 from http://piz.san.edu.pl/docs/e-XV-6-1.pdf
373. Towards effective global talent management: The central role of employees. (2016). *Strategic Direction*, *32*(2), 5-7.
374. Tourish, D. (2013). *The dark side of transformational leadership. A critical perspective* (1st ed.). Routledge.

375. Trąpczyński, P. (2015). *Foreign direct investment strategies and performance in the internationalization of Polish companies*. Warszawa: Difin.
376. Trocki, M. (2010). Podejście procesowe w zarządzaniu. In A. Skowronek-Mielczarek (Eds.), *Wyzwania zarządcze w zmieniającym się otoczeniu* (pp. 130-140). Warszawa: Oficyna Wydawnicza SGH.
377. Trocki, M. (2014). *Organizacja projektowa*. Warszawa: PWE.
378. Trocki, M. (Ed.). (2012). *Nowoczesne zarządzanie projektami.* Warszawa: PWE.
379. Trzepacz, P. (2012). Geneza i istota koncepcji rozwoju zrównoważonego. In *Zrównoważony rozwój – wyzwania globalne* (pp. 13-35). Kraków: Instytut Geografii i Gospodarki Przestrzennej UJ.
380. Turulja, L., Cinjarevic, M., and Veselinovic, L. (2021). Information technology and knowledge sharing for better health care: An emerging economy context. *Journal of Knowledge Management*, *25*(3), 559-572. doi:10.1108/JKM-09-2019-0514
381. Tyrańska, M., Wiśniewska, S., Szydło, R., and Koczyński, M. (2020). *Digital competencies before and during the COVID-19 pandemic crisis – comparative study* (Proceedings of the 6th International Scientific Conference on Contemporary Issues in Economics, Business and Management (EBM 2020)). Faculty of Economics in Kragujevac.
382. Tyszka, T., and Domurat, A. (2004). Czy istnieje ogólna skłonność jednostki do ryzyka? *Decyzje*, (2).
383. Ulrich, D. (2008). Call for talent: What is the best solutions? *Leadership Excellence*, *25*(17).
384. Uren, L. (2011). What talent wants: The journey to talent segmentation. *Strategic HR Review*, 10(6), 31-37.
385. Van Dyck, C., Baer, M., Frese, M., and Sonnentag, S. (2005). Organizational error management culture and its impact on performance: A two-study replication. *Journal of Applied Psychology*, *90*(6), 1228-1240. doi: 10.1037/0021-9010.90.6.1228
386. Van Dyne, L., Vandewalle, D., Kostova, T., Latham, M., and Cummings, L. (2000). Collectivism, propensity to trust and self-esteem as predictors of organizational citizenship in a non-work setting. *Journal of Organizational Behavior*, *21*(1).
387. Van Maanen, J. (1988). *Tales of the field: On writing ethnography*. Chicago: University of Chicago Press.
388. Vera, D., and Rodriguez-Lopez, A. (2004). Strategic virtue: Humility as a source of competitive advantage. *Organizational Dynamics*, *33*, 393-408.
389. Vroom, V. H., and Jago, A. G. (1974). Decision making as a social process: Normative and descriptive models of leader behavior. *A Journal of the Decision Sciences Institute*, *5*, 743-755.
390. Wagner, D., Vollmar, G., and Wagner, H. -T. (2014). The impact of information technology on knowledge creation: An affordance approach to social media. *Journal of Enterprise Information Management*, *27*(1), 31-33. doi: 10.1108/JEIM-09-2012-0063
391. Walczak, W. (2012). *Wpływ kultury organizacyjnej na skłonność do dzielenia się wiedzą*. Retrieved January 10, 2022 from http://www.e-mentor.edu.pl/artykul/index/numer/43/id/899
392. Watson, T. (2012). Making organisational ethnography. *Journal of Organizational Ethnography*, *1*(1), 15-22. doi:10.1108/20466741211220615
393. Weinert, F. E. (2001). Concept of competence. In D.S. Rychen, L.H. Salganik (Eds.), *Defining and selecting key competencies* (pp. 45-66). Seattle, WA: Hogrefe & Huber.
394. Wiedman, A. C., Cheng, J. T., and Tracy, J. L. (2018). The psychological structure of humility. *Journal of Social and Clinical Psychology*, *114,* 153-178.
395. Wiig, K. M. (1993). *Knowledge management foundations*. Arlington, TX, USA: Schema Press.
396. Wilkinson, A., and Wood, G. (2017). Global trends and crises, comparative capitalism and HRM. *The International Journal of Human Resource Management*, *28*(18).
397. Williams, M. (2000). *The war for talent : Getting the best from the best*. Gardners Books.
398. Winkel, O. (2010). Higher education reform in Germany: How the aims of the Bologna process can be simultaneously supported and missed. *International Journal of Educational Management*, *24*(4), 303-313. doi: 10.1108/09513541011045245

399. Wojciszke, B. (2003). *Postawy i ich zmiana*. In J. Strelau (Ed.), *Psychologia. T. 3. Jednostka w społeczeństwie i elementy psychologii stosowanej*. Gdańsk: GWP.
400. Wołczek, P. (2014). Ewolucja podejścia do koncepcji zrównoważonego rozwoju na arenie międzynarodowej. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, (338), 207-2018.
401. Wontorczyk, A. (2020). Błędy w procesie pracy i sposoby im zapobiegania. In B. Rożnowski, P. Fortuna (Eds.), *Psychologia biznesu* (pp. 173-191). Warszawa: Wydawnictwo Naukowe PWN.
402. Woollard, S. (2010). Managing talent across a global workforce. *Strategic HR Review*, *9*(5), 5-10.
403. Wróbel, P. (2021). *Zarządzanie zdalnymi pracownikami. Specyfika, wyzwania i rozwiązania*. Gdańsk: Wydawnictwo Uniwersytetu Gdańskiego.
404. Wrzalik, A., Niedbał, R., and Sokołowski, A. (2018). Rola sztucznej inteligencji w rekrutacji i selekcji personelu. *Marketing i Rynek*, (9).
405. Yapp, M. (2009). Measuring the ROI of talent management. *Strategic HR Review*, *8*(4), 5-10.
406. Ybema, S., Yanow, D., Wels, H., and Kamsteeg, F. (Eds.). (2009). *Organizational ethnography: Studying the complexities of everyday life*. London: Sage.
407. Yildiz, S., Basturk, F., and Boz, I. T. (2014). The effect of leadership and innovativeness on business performance. *Procedia – Social and Behavioral Sciences*, *150*.
408. Zakrzewska-Bielawska, A. (2017). Istota procesu zarządzania. In A. Zakrzewska-Bielawska (Ed.), *Podstawy zarządzania. Teoria i ćwiczenia*. Warszawa: Wydawnictwo Nieoczywiste.
409. Zaliwski, A. (2000). *Korporacyjne bazy wiedzy.* Warszawa: PWE
410. Zelek, A. (2020). V jak Victoria czy L jak lichota – czyli globalna gospodarka po koronakryzysie. *Zeszyty Naukowe ZPSB Firma i Rynek*, *2*(58), 7-17.
411. Zgrzywa-Ziemak, A., and Kamiński, R. (2009). *Rozwój zdolności uczenia się przedsiębiorstwa.* Warszawa: Difin.
412. Zhao, B., and Olivera, F. (2006). Error reporting in organizations. *Academy of Management Review*, *31*(4), 1012-1030. doi: 10.5465/amr.2006.22528167
413. Zieleniewski, J. (1981). *Organizacja i zarządzanie*. Warszawa: PWN.

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This monograph contains considerations on the subject of the approach to talent management seen from a variety of perspectives, of employees and managers of different levels, areas, processes and practices within an rganization. The discussed range of problems is vital, interesting and current. The issues of managing talent and the development of employees are key in managing staff and running modern organizations. The wide and multifaceted approach proposed by the authors appears to be justified by the need for the conscious and purposeful investment in human capital. The problems addressed in the monograph confirm the fact that its subject matter is inspiring, and also provides opportunities for empirical research and academic debate.

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