

Sylvia Przytuła

Wroclaw University of Economics

Wroclaw, Poland

s_przytula@wp.pl

Global Labor Market Trends and Their Significance for the Future Employees' Competences

ABSTRACT

Objective: The theoretical purpose of this article is to present social, technological, economic and cultural trends that determine the global labor market, new needs on the labor market and create new competences and professions. The goal of empirical research was to diagnose the most challenging trends for HR specialists and to identify key competencies on the global workforce market.

Methodology: The paper, apart from desk-research and literature review, presents the results of exploratory pilot research. Purposive sampling was applied and the questionnaire was addressed to 44 managers and HR specialists ("key informants", Myers, 2009) who are participants of postgraduate studies in HR Business Partner, Human Resource Management. The conducted research was idiographic, which means that its conclusions concern only the studied population. But resignation from a broad generalization of results does not necessarily reduce their cognitive value (Chełpa, 2003).

Findings: The biggest challenges for HR were: retention of employees and building their loyalty, shortage of employees on the labor market, management of employees of different generations. It can be said that these challenges are inherent with global trends and problems faced by employers. Respondents pointed to the most desirable competencies nowadays and in the near future: IT competencies, intercultural skills, creative and cognitive thinking, ability to work in virtual and multicultural teams. To the key personnel activities which in the next 5 years will gain in importance belonged: mobile working, hiring experts (freelancers), crowd working, portfolio work.

Value Added: This theoretical-empirical study organizes the current results of foresight research on HR trends, in order to develop an aggregated list of the most desirable competencies on the global labor market. Knowledge about the missing, niche competencies of employees pointed out by employers will allow targeting education systems and equipping employees equipped with the most demanded skills and knowledge.

Recommendations: The challenges of the global labor market presented in this article will contribute to disappearance of many previous professions, changes in the nature of work and the emergence of its new forms. In the coming years, many HRM practices will require the revision and implementation of new personnel solutions for recruitment, motivation and career path creation. A flexible career understood as a “portfolio of projects and experiences” of an employee will develop in any direction. Communication model in companies will also be transformed, as mobile devices will become an office, a training room and a personal assistant.

Key words: HR challenges, global market, competencies, HR, global mobility

JEL codes: M54

Introduction

The wide spread and scale of the relocation of workers, in both emerging and developed economies, is driving new opportunities and challenges for HR function. The purpose of this article is to present social, technological, economic and cultural trends that determine the global labor market, new needs in the labor market which create new competencies and professions. Demographic changes, growing international mobility (spatial and pro-

fessional), technological breakthrough (automation, digitization), CSR and sustainable development require employers to reformulate a place, a form and a way of performing work.

Forecasts of numerous institutions monitoring the labor market promise the disappearance of many existing professions, a shortage of employees with desirable competencies on a global scale, an expanding competence gap in many sectors of the world economy, which complements the above study of megatrends.

Theoretical background and literature review was enriched with empirical research conducted on 44 HR managers and specialist responsible for recruiting and developing employees in their companies.

Trends and Challenges of The Global Workforce Market

Social-cultural, political, economic and religious changes were described by S.Vertovec in his concept of super diversity (2006). Workforce has become increasingly multinational and multicultural (Inkson & Khapova, 2008; Ozbilgin, 2008). It's possible to identify a few megatrends (or so called „big shifts“)i.e. phenomena that reshape societies, global labor market, and that create competency requirements of the future workforce (Hagel et al., 2009). These changes are: demographic changes, increasing international mobility, technological breakthrough, CSR and sustainable development (Meister & Willyerd, 2010; Workforce of the future., 2017).

Demographic changes

Demographic changes, which can be observed in the most developed countries, result in an increase of a number of elderly people. According to OECD study (2017), 60% of world's population live in countries with stagnant or declining population. The population of EU countries is projected to rise

from 501m in 2010 to 526 m in 2040, and then to fall to 517m in 2060. The percentage of people over 65 will rise from 17% to 30%.

Currently we can identify 5 generations on the market: traditionalists, baby-boomers, generation X, generation Y or Millennials and generation C (the name come from English: communicating, computerized, always clicking, content-centric). The representatives of these generations vary in many aspects of their professional life: job expectations, learning, communication preferences, company loyalty (Deloitte University Press, 2017). The time that an employer has for building employee's loyalty has shrunk significantly. 25% of Millennials claim that working in one workplace for 7 months makes one a loyal employee. For comparison, 14% of baby boomers who have taken part in the survey claim that one has to stay with a company for at least 5 years to prove their loyalty. On the other hand, as much as 33% of all respondents (baby boomers, generation X and Millennials) know whether they could stay at their company long-term after being on the job for only one week and 63% decide to stay or not within a month (Research Study..., 2015).

44% of generation Y representatives assume that they will not stay at their company longer than two years (The 2017 Deloitte..., 2017; PwC's NextGen: A global generational study, 2013). The differences resulting from belonging to a given generation can cause a lot of problems in the workplace; on the other hand, using the synergy effect may contribute to creating a new model of workforce development based on "intergenerational" learning (HAYS Report..., 2018). Employees from different generations relay knowledge and lifetime experience to one another, thus creating new ways of professional development. In addition to intergenerational co-operation, there is a new developmental form i.e. a global career based on the concept of career without boundaries where wider extra organizational and cross-cultural networks may provide value to a potential boundless careerist that goes beyond networks within the multinational organization (Inkson & Khapova, 2008).

Global mobility

Global mobility means intense relocation of employees and its various forms, which nowadays constitute a constant element of the labor market, affecting the availability of workforce locally (Pricewaterhouse&Coopers, 2012; Przytuła, 2017). On the one hand, spatial mobility is perceived as a complex, multivariate social process, and on the other hand, as a unique ability of an individual and a competency requirement in a situation of skilled workforce shortages (Collings, 2014; Kirk, 2016).

A half of the studied companies expect that within a decade there will be an increase in workforce mobility, 75% of them note the necessity to employ flexible mobility programs due to changing needs of employees and increasing expectations of employers (Cartus, 2014). Similarly, according to Brookfield (2016), 88% of international corporations anticipate that the number of foreign assignments of their employees will rise significantly. Other market forecasts predict that approximately 35m of additional workforce will be needed to fill the employment gap in Europe by 2050 (The future of work..., 2016).

Professional mobility is also of great significance as it means willingness and ability to change a job, an employer or a position. It also comprises the concept of professional development and improving professional qualifications in a situation when demands of the labor market are changing. Increasing professional mobility results in creating new forms of work such as telework, crowdworking (sharing the job by various employees), flexiwork (flexible time, place and tasks), uberization (work on demand) (Poliński, 2016; The future of work..., 2016).

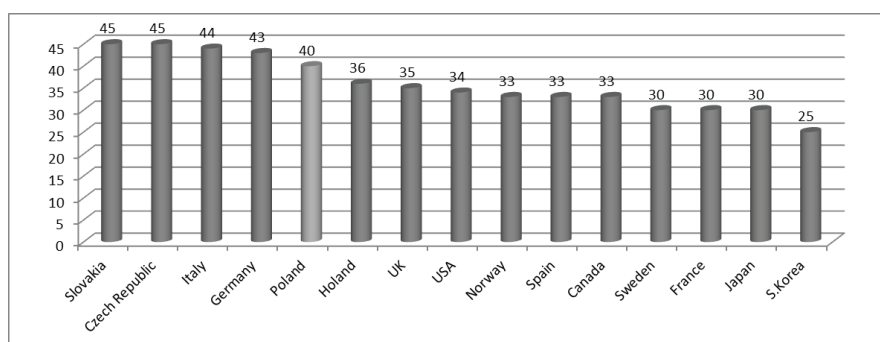
Although there are a lot of advantages of the above forms of work, there are also negative aspects which are defined as precarization (lack of social and job security, excessive employer control by means of digital tools).

Automation of workplace

Technological advancement has bigger and bigger impact on the size and structure of work demand in the modern world and increasing automation is the second most important strategic priority (36% of companies plan to increase automation over the next 12 months through leveraging cloud computing and 13% by investing in RPA-Robotic Process Automation (The robots are coming, 2016). The world has got flat due to innovative technological solutions. Automation of work is a response to increasing labor costs in developing countries and aging population in developed ones. Machines and robots are able to do extremely complex tasks, what leads to driving highly skilled employees out of the market (Skórska, 2016; Robotics and its role..., 2016).

The HAYS(2018) and McKinsey's (2017) forecasts prove that nearly a half (47%) of existing jobs are bound to be replaced by machines within the next 25 years. Additionally, it is estimated that approximately 57% of jobs are at risk of automation in highly- developed countries, while in EU market it is 54% (Fig. 1).

Figure 1. Workplaces at risk of automation (data in %)



Source: Automation and Independent Work in a Digital Economy, 2016.

Globally, nearly 5% of jobs will disappear totally because of automation (A future that works..., 2017). The pace of changes in developed countries will be slower, but the final effect will be much worse for the market – 85% of occupations can be automated (Poliński, 2016; The robots are coming, 2016). According to Gumtree report, jobs that are most susceptible to automation are simple office jobs, requiring low or average qualifications connected with routine repetitive activities. Highly skilled jobs are least at risk of automation as their performing is based on skills and abilities such as originality, creativity, social intelligence and ability to non-routine acting. Similarly, the research by C.B Frey and M. Osborne prove that 90% of creative jobs are not at risk of automation (for: Poliński, 2016).

The loss of a job as result of automation is defined in the literature as “technological unemployment”, but it should be pointed out that new technological advances are not able to replace work of a man entirely. The research conducted by E. Moretti (2010) and M. Goose (2015) indicate that every new workplace in a high technology sector results in creating about five new complementary workplaces.

Digital society

Societies and economies switched from the industrial era to the information era. The measure of digital economy and information society development are three indices: Networked Readiness Index (NRI), Digital Evolution Index (DEI), Digital Economy and Society Index (DESI) (Arendt & Skorupińska, 2015; Trendy HR. Zmiana zasad w erze cyfryzacji, 2017). Digital information plays more and more important role both in professional and private life of an individual. Digital engagement index is 45% globally in 2018 (Digital Society Index, 2018). Ubiquity of mobile technologies facilitates unaided search of useful information and establishing and cultivating professional and personal relations. Social networking sites, video blogs, dedicated e-learning platforms, peer-to-peer communicators contribute a lot to social learning, building social capital con-

nected with networking structure (Sułkowski, 2017). Against this background, “a culture of connectivity” is a new phenomenon, which stresses the need of being connected to the Internet constantly so as to be able to fulfill duties, to meet social needs, to search information and to develop competencies (Meister & Willyerd, 2010). Growing nearly 900 per cent from 400 million in 2000 to 3.5 billion users today, the Internet has had an unprecedented impact on the economy and societies around the globe (Brown, 2017).

An average man in 2020 will generate on the Net 200–300 contacts daily thanks to different channels providing continuous internet connection. “A sensor economy” will emerge, based on the devices that are aware of surroundings and location, and recognizing services and communication needs (in: Warwas & Rogozińska-Pawełczyk, 2016). Being in constant contact with work by means of a smart phone will become a norm. Consequently the boundary between a private life and work will get blurred, occupational hygiene and ability to relax will decline, and tiredness, burnout and addiction will occur instead (Poliński, 2016). China, for example, has in recent years established 300 “digital addiction camps” to help address a problem that is estimated to affect 24 million young people (Digital Society Index, 2018).

However, people are generally pessimistic about future job prospects in the digital economy. The outlook on future employment is particularly pessimistic—just 18% of the population believe that emerging digital technologies such as artificial intelligence and robotics will create job opportunities over the next five to 10 years (Digital Society Index, 2018).

CSR and sustainable development

Another trend developing globally is Corporate Social Responsibility (CSR), which stresses non-financial impact of the company on a society. The concept of sustainable development, which assumes a co-operation between governments, business entities and non-government organizations in many areas of global labor market, is growing in importance (Rego et al., 2017;

Meister & Willyerd, 2010). A. Poczowski (2016) observes that meeting the above challenges requires redeveloping personnel practices and policies, and orienting on sustainable HRM, which fosters work-life balance (Wisskirchen, 2016). The necessity of implementing the above concepts results from the needs and perception of modern labor market participants. Global Co-working Survey (2017), indicates also that there is a need to create a proper working space which is concordant with biological rhythm and natural environment of an individual (so called biophilia), what enables to build interpersonal relations and takes various expectations of employees into account. Positively arranged working space fosters productivity, creativity and has a positive impact on an individual's health (Kohlert & Cooper, 2017).

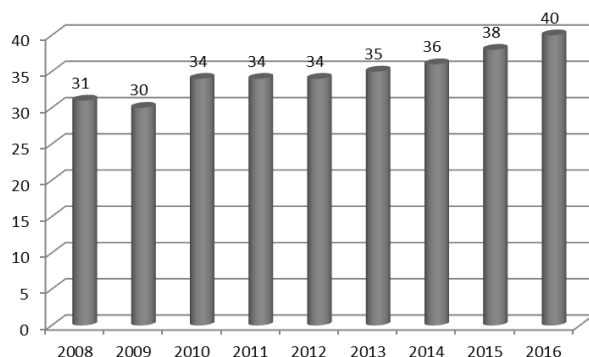
The trends discussed above are of great importance for the global labor market influencing the disappearance of some jobs and appearance of new ones, forcing educational institutions to adjust syllabuses to labor market requirements, defining the knowledge and skills in need, and creating supply of workforce.

Shortage of employees on global market

The shortage of highly skilled specialists with international and intercultural experience has become a big challenge for international companies for the last two decades (Schuler et al., 2011; Manpower, 2017). 30% of studied companies claim that the key reason for transferring managers to foreign subsidiaries is to fill the competency gap in the hosting country (Brookfield..., 2016).

The research conducted in the UK showed that 82% of companies had problems to find right employees, and according to Corporate Executive Board (Cannon, McGee, 2012), approx. 62% of HR managers are worried about skilled employees shortages in their companies (for: Przytula, 2014). Additionally, the last few editions of reports RES show that the supply of international specialist is decreasing. Manpower group point out that 40% of employers find it difficult to recruit workforce – which has been the biggest increase since 2008 (Manpower, 2017). (Figure 2)

Figure 2. Shortage of global workforce (data in %)



Source: Manpower, 2017.

Globally the most affected country is Japan, where additionally the situation is compounded by society aging and a low unemployment rate. The next in the rating are: Taiwan(73%), Romania (72%), Hong Kong (68%), Bulgaria (62%), Argentina, Greece (59%). Currently, in the world there are 274 m international migrants, 74% of which are working age (OECD,2017).The easy movement of highly skilled workers between countries contributes to national, regional and global economic growth and competitiveness. Moreover, the employers say they have most trouble filling roles with highly skilled, knowledgeable and experienced employees (table 1).

Table 1. Jobs most affected by a shortage of qualified employees

	Europe	
1.	Skilled workers	Skilled workers
2.	Engineers	Sales reps
3.	Sales reps	Engineers
4.	Drivers	Technicians
5.	Top/senior managers	Drivers
6.	Technicians	Top/senior managers
7.	Accounting and finance	Accounting and finance

8.	IT specialists	Office support
9.	Office support	IT specialists
10.	Unskilled workers	Production and machine operators

Source: ManpowerGroup, 2016.

In a global and European scale, it is extremely difficult to recruit skilled workers i.e. mechanics, electricians, plumbers, welders, carpenters, cooks, printers, bricklayers, wood butchers, installers. Engineers are also in low supply in EMEA countries. The results of Manpower study show that knowledgeable applicants with in-demand technical skills are increasingly hard to find (an opinion of 34% of respondents). A fifth (22%) of recruitment managers reckon that the main reason of workforce shortage is a lack of experience, and 17% point to a lack of soft skills (inc. enthusiasm, motivation or willingness to learn (Manpower, 2017).

The research conducted by HAYS (Raport płacowy..., 2018) prove that the difficulties in filling roles result from a shortage of suitable applicants on the market (according to 49% of studied companies). In addition, only 38% of employers think that their companies have sufficient competence resources to achieve current business targets and build their competitive edge. Over a half of them think that the competence of their workforce only partially meets the company's requirements.

The report Talent for Europe shows that talent shortage is particularly acute in the field of hi-technology. In 2016 EU countries reported shortage of about 270 000 IT specialists, and the forecasts for 2020 show that the demand for such specialists will double. Dynamic advancement of digital technologies, automation and robotization revealed the scarcity of skilled employees i.e. high-tech leaders. Researchers stress that companies will not be able to make the most of the high tech potential if no measures are taken to raise employees' qualifications and competence to meet this challenge. In addition to digital technology knowledge and skills , it is important to develop multidisciplinary skills complementing and enhancing IT competence such

as: creative thinking, emotional intelligence, leadership, strategic thinking, decision-taking (Talent for Europe..., 2017).

The cause of such big shortage of workforce is undoubtedly demographic factor and related to it age mismanagement, inability to retain knowledge and to ensure generation continuity in companies. Another reason is a lack of an educational offer in vocational, secondary and high schools adjusted to labor market demands. A lack of continuous training in certain jobs or choice of unpopular subjects to study also limit a number of most jobs and competence in-demand (Barometr zawodów 2017; Talent for Europe..., 2017). The authors of a report *Labor Market Shortages in European Union* suggest a few structural measures to counter an increasing competency gap on the domestic labor market. They recommend solutions encouraging future employees to take up jobs (co-operation of local governments, entrepreneurs and vocational and secondary schools); attracting workers from abroad and promoting mobility between EU countries and regions; stimulating and activating internal geographical mobility (e.g. subsidies and other incentives for students or employees' relocation, subsidies for companies employing relocated workers); training and retraining of employees and the unemployed to meet the market demands; making sectors and jobs more attractive and improving the image of employers (so called employer branding) by information campaigns promoting better working conditions. Additionally, the report contains some recommendations for employers such as upgrading their employees' skill by providing on-the-job trainings or study financing); attracting workers from abroad; outsourcing some of economic activities and automation of business processes – these are the tools to alleviate shortages, increase job attractiveness, job security (Labour market...2015). Along these practices, over 50% of employers are trying to use non standard recruitment strategies and increase wages to attract and retain employees (Manpower, 2017).

Competencies and Jobs of The Future

Plenty of research prove that employees' skills have a great and positive impact on a company's performance (Kupczyk & Stor, 2017). Thus, having studied a number of reviews of latest literature on the issue, reports and expertise, it is possible to present a set of competencies which are bound to grow in importance in the near future (Table 2).

Table 2. New competencies and jobs of the future

Report	Competencies of the future
"Future skills" ACTF Report (Williams, 2016)	intercultural competence intercultural communication diversity management ability to translate vast amounts of data into abstract concepts and to understand data-based reasoning (computational thinking)
"The Future of Work. White paper from the employment industry" World Employment Confederation (2016)	complex problem solving critical thinking creativity HR management emotional intelligence service orientation cognitive flexibility

<p>“Future Work Skills 2020” (Davies,Fidler, 2011)</p>	<p>virtual collaboration ability to filter information for importance and to maximize cognitive functioning (cognitive load management) design mindset ability transdisciplinarity ability to understand concepts across-multiple disciplines ability to critically assess and develop content that uses new media forms, and to leverage these media for persuasive communication (new media literacy) ability to translate vast amount of data into consistent concepts ability to operate in different cultural settings proficiency at thinking and coming up with solutions and responses beyond that which is rote or rule-based (novel&-adaptive thinking) ability to understand an environment, to establish positive relations with others and to influence them ability to determine deeper meaning and significance in economy and society</p>
<p>„The HAYS global skills index” (2016)</p>	<p>ability to build long-term relations with customers knowledge of the company's sector knowledge of languages ability to manager projects teamworking communication skills ability to work in multicultural setting</p>
<p>„Bilans kapitału ludzkiego. Kompetencje Polaków a potrzeby polskiej gospodarki” (Górniak, 2014)</p>	<p>experience-based knowledge knowledge of the business sector networking ability to work under pressure</p>
<p>„Raport Gumtree: Aktywni+Przyszłość rynku pracy” (2017)</p>	<p>Digital literacy and mathematical and statistical abilities ability to work with people and intelligent machines high social intelligence and high empathy level we artistic and sports abilities</p>
<p>Report</p>	<p>Jobs of the future</p>
<p>„Barometr zawodów” (2017)</p>	<p>construction specialists (wood butcher, carpenter, bricklayer, ilinesman electromechanic hairdresser bus driver and bus / lorries mechanic nurse and obstetrix financial and accounting specialist with a foreign language knowledge sales representative welder</p>

<p>„Raport płacowy 2018. Trendy na rynku pracy” (HAYS, 2018)</p>	<p>software developer cyber security specialist quality engineer process engineer project manager HR business partner</p>
<p>„Raport Gumtree: Aktywni+Przyszłość rynku pracy” (2017)</p>	<p>Digital analyst data miners software and application developer artificial intelligence specialist intelligent machines and robot designer and producer, Digital marketing and e-commerce specialist</p>

Source: own work based on literature review.

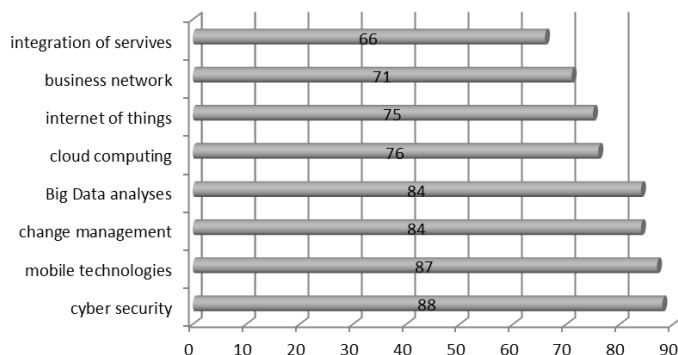
Trying to aggregate the above list of skills, abilities and characteristics of future employees, we can say that key skills on the market will be:

- 1) IT competence – digital, mathematical, programming abilities; knowledge of mobile technologies, engineering studies;
- 2) creative/ cognitive competence – creativity, critical thinking, abstract thinking, project thinking, ability to process vast amount of information;
- 3) intercultural competence – language literacy, cultural awareness, openness to gaining knowledge and experience;
- 4) ability to collaborate in virtual multicultural teams;
- 5) social and emotional intelligence (relations, empathy);
- 6) interdisciplinary competence – including law, management, psychology, computer science.

The digital economy will need employees with digital competence. Particularly, further development of Big Data, mobile applications and the Internet will require constant influx of IT specialists. European Committee forecasts that about a million of workplaces will be created for such specialist in UE to 2020. Future market experts predict that new sectors of the digital economy will need especially analysts, data miners, artificial intelligence specialists, new intelligent machines and robots designers and producers, as well as digital marketing and e-commerce specialists (Kulak-Dolata, 2015; Górnjak, 2015).

Authors of „Skills for digital transformation” (2017) identified several fields of business activity where specialist with digital competencies will be needed (Figure 3).

Figure 3. Specialists needed in the field of... (data in %)



Source: Hoberg, Krcmar & Welz, 2017.

Employers also stress increasing demand for soft skills (creative, cognitive), naming pro-active attitude and willingness to work, ability to collaborate, communication skills, creativity, flexibility and openness to changes in the context of continuous gaining new skills (Trendy HR..., 2017). Moreover, digital economies will need the so-called e-leaders or high-tech leaders, able to combine digital, social and managerial competencies (Raport Gumtree..., 2017; Talent for Europe..., 2017). They are the so-called interdisciplinary skills combining many scientific disciplines (e.g. psychology, management), and it is worth pointing out an ability to analyze and draw conclusions, knowledge of legal and specialist issues connected with the job done, knowledge of organizational behavior of an individual (Raport płacowy..., 2018).

Intercultural competence is an ability of an individual to use their knowledge, skills and personality traits to succeed in working with people from different cultural backgrounds (Rozkwitalska, 2011). This competence can be achieved by interacting with people, experiencing a different culture, vis-

iting other countries, collaborating with foreigners on a daily basis, speaking other languages.

One of the challenges in international HR management is working in multicultural, often virtual, teams, working asynchronously. Research conducted in multicultural teams proves that cultural diversity makes for creativity and innovativeness of team members (so called cross-pollination of workforce, Global Workforce Trends, 2017), improves communication and job satisfaction, creates proper atmosphere which aids over average performance of a team because of opportunity to contact people representing various backgrounds, models of thinking and perceptions, knowledge, sources of information, experience and skills (Rozkwitalska, 2016).

Social and emotional intelligence will be key competence in team work and at the positions connected with people management. It could appear that this psychosocial competence is unique and vital for an individual, that it is a value that machines or robots cannot offer. However, as Gałuszka notes (2016), "social robot" designed nowadays, already act as attendants, therapists, teachers and so on, forming prostheses of interpersonal relations. It leads to creating a new form of intimacy with machines, which becomes peculiar substitute of a man or a living thing.

Research Method and Findings

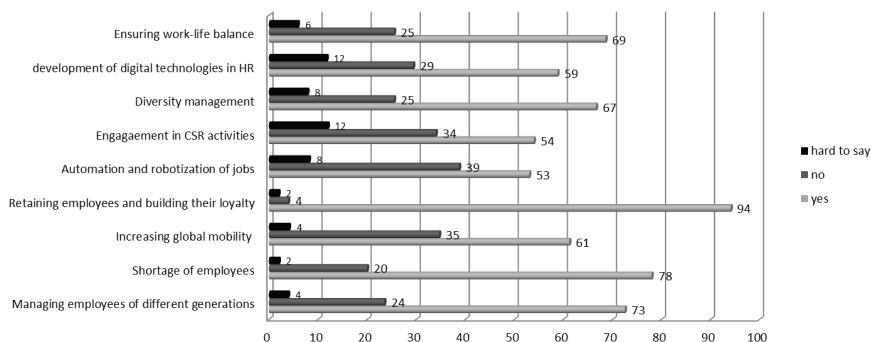
For the purpose of this article, exploratory pilot research were carried out in order to understand the subject of the study better and to explore the possibility of undertaking larger-scale research concerning changes in the HR function and to indicate niche, unique competencies on the current labor market. The questionnaire contained 7 questions with a close-ended and 2 open questions. Purposive sampling was applied and the questionnaire was addressed to 44 managers and HR specialists who are participants of postgraduate studies in HR Business Partner, Human Resource Management. Purposive sampling allows better exposition and identification of the studied

phenomena (Hammersley & Atkinson, 2000). The conducted research was idiographic, which means that its conclusions concern only the studied population. But abandoning from a broad generalization of results does not necessarily reduce their cognitive value (Chetpa, 2003).

On the one hand, this favors obtaining information from key informants (Myers, 2009), people who have the best knowledge in the area covered by the study (Kotler, 2005). Respondents are involved in staffing and managing new employees. On the other hand, this procedure allowed to capture the defects of the questionnaire. This test should be treated as a pilot rather than a proper research. Over half of the respondents (23 people) worked for international companies, and 21 people were employees of Polish companies and institutions. 32 respondents had had seniority in HR departments for 6–10 years, 7 people worked in personnel departments from 1–5 years, and 5 people had an experience of over 10 years in the personnel area. For each of the question, the respondent could answer: yes / no / hard to say.

When asked about the biggest challenges for HR, the respondents indicated retention of employees and building their loyalty (94%), shortage of employees on the labor market (78%), management of employees of different generations (73%) (Figure 4).

Figure 4. What are the biggest challenges for HRM? (data in %)

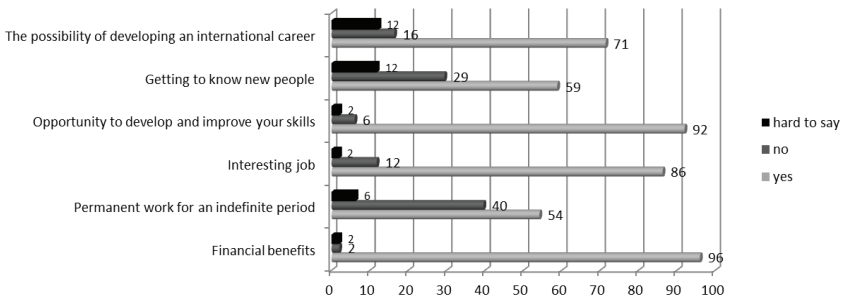


Source: own work.

It can be said that these challenges are inherent with global trends and problems faced by employers, which was discussed in the literature review section. Another important challenge is to provide employees with work-life balance (69%) and diversity management (67%).

In the opinion of the respondents, the most important factors motivating employees of Y, Z generation are financial motives (96%), the opportunity to develop and improve their skills (92%) and interesting work (86%)(Figure 5).

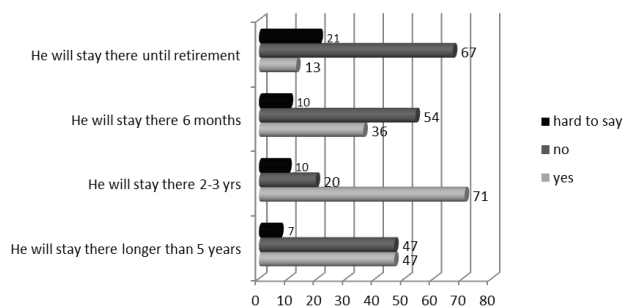
Figure 5. What are the motives of taking up work by employees of the Y, Z generation? (data in %)



Source: own work.

The respondents also defined the current trends regarding the time perspective of the newly hired employee. According to 71% of them, a new employee stays with the company for 2-3 years, 47% estimate that it will be longer than 5 years. The perspective of lifetime employment (until retirement) is a disappearing approach (only 13% notice such an approach of new employees) (Figure 6).

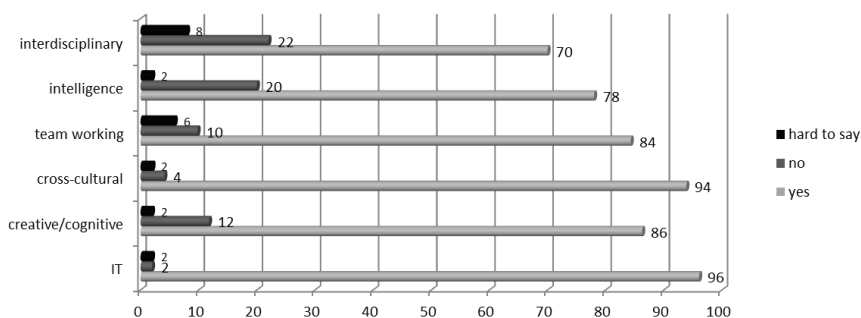
Figure 6. What is the time perspective of a newly employed employee in your company? (data in %)



Source: own work.

Managers and HR specialists pointed to the list of the most demanded competencies. In the questionnaire these groups of competencies have been specified in detail. These are: IT competencies (digital abilities, mathematics, programming, knowing mobile technologies, engineering education)(96%), intercultural competencies (foreign languages, knowledge of other cultures, experience of diversity, openness to new experience)(94%), creative and cognitive competencies (creativity, critical thinking, abstract thinking, design thinking, ability to cope with large amounts of information)(86%), ability to work in virtual and multicultural teams (84%) (Figure 7).

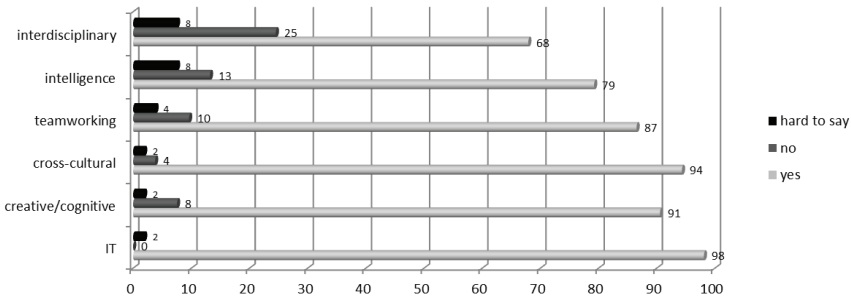
Figure 7. What are the most demanded competencies for employers today? (data in %)



Source: own work.

When it comes to the future needs (in 5 years), respondents indicated similar competencies that will be important for employers: IT (98%), inter-cultural (94%), creative / cognitive (86%) skills, ability to work in virtual and multicultural teams (84%) (Figure 8).

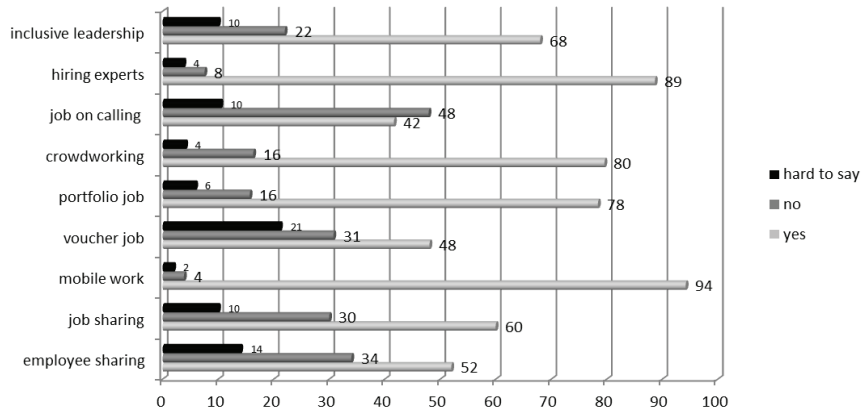
Figure 8. What are the most demanded competencies for employers in the future? (data in %)



Source: own work.

Respondents indicated key personnel activities (which were specified in detail in the questionnaire), which in the next 5 years will gain in importance. In their opinion, these are: mobile work (94%), hiring experts (freelancers) for the duration of the project (89%), crowd working (tasks divided between teams) (80%), portfolio work (self-employed person works for many clients) (78%). It is worth noting that the voucher work (work package purchased from an intermediary organization) and work on call (the employer calls the employee when he is needed without regular working hours) is not a key factor for the surveyed HR specialists and managers (Figure 9).

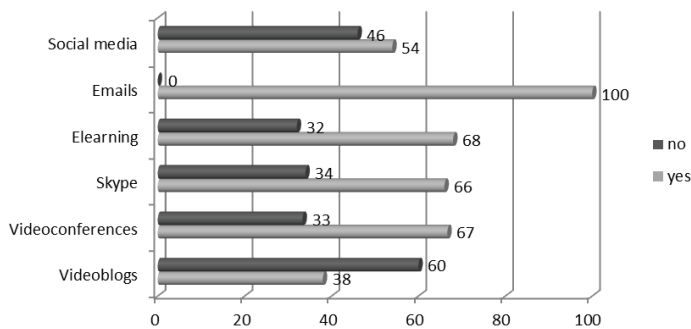
Figure 9. Which personal activities will gain in importance in the next 5 years?



Source: own work

Respondents indicated that their companies use various mobile technologies in communication. The most common are e-mails, followed by e-learning, videoconferencing, skype, social networks. The use of video blogs is the least common (Figure 10).

Figure 10. What mobile technologies are used in the internal communication of the company in which you work?



Source: own work.

The open questions concerned the listing of positions/jobs most at risk of automating within the next 10 years. Respondents listed the following positions and professions, which can be grouped as follows:

- customer service employees (sellers, service technicians, call centers),
- production and warehouse workers (machine operator, fitter),
- HR and accounting employees,
- cyber security analyst,
- receptionist.

It is worth mentioning that according to the Deloitte report, 50% of leaders surveyed rate their company as weak at aligning competency frameworks to account for new robotics and AI (artificial intelligence) requirements, as well as at redeploying employees replaced by these technologies and re-skilling others to complement the new tools. Companies that are not already considering RPA (robotic process automation) and other forms of automation as a component of a broader worker ecosystem will miss significant opportunities for efficiency, quality enhancement, risk mitigation, innovation, and ultimately, growth (Automation is here to stay...but what about your workforce?, 2017).

The respondents pointed to the largest problems in managing employees:

- communication (language barrier in intercultural teams, lack of communication between departments, lack of clearly defined rules of remuneration, principles of cooperation, reporting),
- resistance to changes (habits, multigenerational, age, low commitment, lack of responsibility),
- lack of willingness to develop qualifications,
- huge financial expectations,
- high personnel fluctuation and shortage of employees on the labor market,
- cultural diversity (multinational employees, branches established in different time zones),
- high individuality and inability to work in teams,
- considerable overloading,
- inability to retain the best employees in the company.

Discussion

The results of these pilot studies show that for the group of managers and HR specialists, issues related to demography, a shortage of qualified employees (talents) and multigenerational issues in the workplace are challenges faced by other employers in the global labor market. The talent mismatch – between where talent is most needed and where it will be most available – is not likely to evaporate soon. Managing this skills gap in the developed world and recruiting appropriate talent in the emerging economies will become a critical task for global HR specialists in the future (Global Talent 2021, 2012; Global Workforce Trends, 2017). Shaping employees' involvement, as well as supporting the feeling of loyalty and binding employee with the employer for a longer time are also the priorities of the personnel policy of many organizations (Truss et al. 2013; Kopertyńska & Kmiotek, 2015). In the study of PWC, 60% of employers think "few people will have stable, long-term employment in the future" (Workforce of the future. The competing forces shaping 2030, 2017). In the question regarding the employment perspective, the tendency to maintain short-term ties of new employees with the company (2–3 years) is clearly confirmed, and the perspective of "lifetime employment" is already an outdated formula for the current and future years.

The HR specialists pointed out that the work & life balance approach is growing in importance, which is in line with global management practices. Organizations are increasingly enforcing HRM practices that may support employees in their efforts to reconcile work and non-work responsibilities (CRANET, 2017; Stavrou & Ierodiakonou, 2015). The key motive determining the willingness of work for YZ generation is the remuneration and financial benefits (96% of respondents indicated this factor). Similarly Leahy et al. (2011) and Jang (2008) concluded that Generation Y employees seem to be more motivated by extrinsic motivation than the elder generations. They are more likely to leave their jobs when another company provides better extrinsic factors such as pay and benefits.

Respondents also mentioned “the opportunity to develop and improve skills” and “interesting work” as motivators for YZ employees. I also find such motives in the studies of J.L. Lerdin conducted on young self-initiated expatriates, which proves that “personal challenge” and “professional development” played the major role in the decision to embark on an international mobility and they are the first two motivators for them (Cerdin, 2013).

The dynamics of global displacement of the last decade and employee mobility (International Organization for Migration (IOM), 2016) as well as technological development (especially digitization, robotization and automation), imply a demand for new niche competencies, such as IT competencies, intercultural competencies, creative / cognitive skills and ability to work in virtual and multicultural teams. The fast-growing digital economy is increasing a demand for highly skilled technical workers (Global Talent 2021, 2012), and 37% are worried about automation putting jobs at risk (Workforce of the future. The competing forces shaping 2030, 2017).

In the opinion of 70% of respondents of the above study, the importance of interdisciplinary skills (having knowledge and experience in various fields of science, e.g. law, psychology, management, IT) is growing. The need to create interdisciplinary, multilevel teams whose activities would focus on specific problems, was also a challenge formulated in Deloitte’s research (Trendy HR. Zmiana zasad w erze cyfryzacji, 2017).

The key HR activities according to respondents were: mobile work, hiring experts (freelancers) for the duration of the project, crowd working, and portfolio work. It is worth noting that the voucher work (work package purchased from an intermediary organization) and work on call (the employer calls the employee when this is needed without regular working hours) is not a key factor for the surveyed personnel. Maybe in Poland these flexible forms of cooperation are not yet so popular that one can infer their significance in the future.

Limitations

The sample size was a concern because there were only 44 participants in the study. This small population may not have represented the entire population of HR specialist and their predictions about HR challenges or key competences. However, the purposive sampling of respondents and asking questions to HR specialists allowed to remove several flaws in the questionnaire, e.g. in open questions from a wide range of answers obtained from 44 respondents, aggregation can be made in relation to positions threatened by automation and the largest problems in employee management. Another limitation is too short list of competencies, which was offered to respondent. Expanding this list would give a more detailed picture allowing to build competence models for specific positions at least in the industry (e.g., production).

References

2017 Global Coworking Survey (2017). <http://www.deskmag.com>, access: 18.10.2018.

A future that works: automation, employment, and productivity (2017). McKinsey (online), <https://www.mckinsey.com>, access: 20.10.2018.

Arendt, Ł., & Skorupińska, A. (2015). Wpływ TIK na produktywność krajów Europy Środkowo-Wschodniej: analiza makroekonomiczna. In **E. Arendt, & Ł. Kryńska** (Ed.), *Technologie informacyjne i komunikacyjne a produktywność w Polsce i krajach Europy Środkowo-Wschodniej*. Łódź: Wydawnictwo Uniwersytetu Łódzkiego.

Automation and Independent Work in a Digital Economy (2016). OECD (online). www.oecd.org/

[employment/futureofwork.htm](http://www.oecd.org/employment/futureofwork.htm), access: 10.01.2018.

Automation is here to stay... but what about your workforce? (2017). Deloitte (online). <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Financial-Services/gx-fsi-automation-here-to-stay.pdf>, access: 14.10.2018.

Barometr zawodów 2017 (2017). Kraków (online). www.barometrzwodow.pl/userfiles/Barometr/2017/Raport_polski_web.pdf.

Brookfield Global Relocation Trends (2017). Global Mobility Trends Survey. New York.

Brown, K. (2017). *Paths to our Digital Future*. Global Internet Report.

Cannon, J., & McGee, R. (2012). *Zarządzanie talentami i planowanie ścieżek karier. Zestaw narzędzi*. Warszawa: Wolters Kluwer Polska.

Cartus (2014). *Global Mobility Policy & Practices*. Survey executive summary report.

Cerdin, J. L. (2013). Motivation of self-initiated expatriates. In **M. Andresen, M. AlAriss, & A. Walther** (Ed.), *Self-initiated expatriation. Individual, organizational and national perspectives*. New York: Routledge.

Chełpa, S. (2003). Celowy dobór prób badawczych w zarządzaniu kadrami – sens czy nonsens metodologiczny. *Współczesne Zarządzanie*, 4.

Collings, D. (2014). Integrating global mobility and global talent management: exploring the challenges and strategic opportunities. *Journal of World Business*, 49, 253–261.

CRANET survey on comparative Human Resource Management. International Executive Report (2017). CRANET (online). <https://www.fdv.uni-lj.si>. access: 13.10.2018.

Davies, A., Fidler, D., Gorbis, D. (2011). Future Work Skills 2020. Palo Alto, CA: Institute for the Future for University of Phoenix Research Institute.

Deloitte University Press (2017). Navigating the future of work: Can we point business, workers, and social institutions in the same direction? *Deloitte Review*, 21.

Dickmann, M. (2017). The RES Forum Annual Report. The new normal of global mobility-flexibility, diversity, data mastery. <https://www.abels.co.uk/wp-content/uploads/2017/06/RES-Report-2017-Executive-Summary-Harmony.pdf>, access: 8.10.2018.

Digital Society Index (2018). <https://www.oxfordeconomics.com/recent-releases/the-digital-society-index-2018>, access: 20.10.2018.

Friedman, T. L. (2005). *The World Is Flat: A Brief History of the Twenty-first Century*. New York: Farrar, Strauss and Giroux.

Global Talent 2021 (2012). Oxford Economics (online). <https://www.oxfordeconomics.com/Media/Default/Thought%20Leadership/global-talent-2021.pdf>, access: 12.11.2018.

Global Workforce Trends (2017). Sodexo (online). <https://www.sodexo.com/files/live/sites/sdxcom-global/files/PDF/Media/Sodexo-2017-workplace-trends-report.pdf>, access: 14.10.2018.

Goos, M., Konings, J., & Vandeweyer, M. (2015). Employment Growth in Europe: The Roles of Innovation, Local Job Multipliers and Institutions. *Utrecht School of Economics Discussion Paper Series*, 15(10).

Górniak, J. (2014). *Bilans kapitału ludzkiego. Kompetencje Polaków a potrzeby polskiej gospodarki*. Warszawa (online). <http://www.ceapp.uj.edu.pl/documents/4628317/7def-19fc-03a5-40b5-b16e-20c0c67896a1>

Górniak, J. (2015). *Bilans Kapitału Ludzkiego. Polski rynek pracy – wyzwania i kierunki działań*. Warszawa-Kraków.

Hagel, J., Seely Brown, J., & Davison, L. (2009). The Big Shift: Measuring the forces of change. *Harvard Business Review*, 7–8.

Hammersley, M., & Atkinson, P. (2000). *Metody badań terenowych*. Warszawa: Zysk i S-ka.

HAYS Report. Wyzwania na rynku pracy. Oczekiwania i rozwój (2018). https://www.hays.pl/cs/groups/hays_common/documents/digitalasset/hays_2078590.pdf, access: 20.10.2018.

Hoberg, P., Krcmar, H., & Welz, B. (2017). Skills for Digital Transformation. IDT Survey 2017. (online). https://www.i17.in.tum.de/uploads/media/IDT-Survey_Report_2017_final.pdf, access: 20.11.2018.

Inkson, K., & Khapova, S. (2008). International careers. In **D. Smith, P. Peterson, & M. Thomas** (Ed.), *The handbook of cross-cultural management research*. New York: Sage Publications.

International Organization for Migration (IOM). (2016). World Migration 2016. Geneva.

Jang, J. (2008). *The Impact of Career Motivation and Polychronicity on Job Satisfaction and Turnover Intention among Hotel Industry Employees*. Master Thesis. University of North Texas, August (online). <https://digital.library.unt.edu/ark>.

Keynes, J. M. (1931). The Economic Possibilities for our Grandchildren. In **J. M. Keynes** (Ed.), *Essays in Persuasion*. London: Macmillan.

Kirk, S. (2016). Career capital in global Kaleidoscope Careers: the role of HRM. *International Journal of Human Resource Management*, 27(6), 681–697.

Kohlert, C., & Cooper, S. (2017). *Design principles for work and learning environments*. Work&Place.

Kopertyńska, M., & Kmiotek, K. (2015). Engagement of employees of generation Y-theoretical issues and reserach experience. *Argumenta Oeconomica*, 2(35).

Kotler, P. (2005). *Marketing*. Poznań: Rebis.

Kulak-Dolata, I. (2015). Zasoby ludzkie wobec TIK. In **E. Arendt, Ł. Kryńska** (Ed.), *Technologie informacyjne i komunikacyjne a produktywność w Polsce i krajach Europy Środkowo-Wschodniej*. Łódź: Wydawnictwo Uniwersytetu Łódzkiego.

Labour market shortages in European Union (2015). <http://www.europarl.europa.eu/RegData/etudes/STUD/2015.pdf>

Leahy, K., McGinley, J., Thompson, T., & Weese, J. (2011). Intelligence Community Assessment: Generational Difference in Workplace Motivation. *Intelligence Reform and Transformation*, 29(1(13)).

Manpower (2017). *Talent Shortage Survey 2016/2017*. Manpower Group (online). http://www.manpowergroup.co.uk/wp-content/uploads/2016/10/2016_TSS_Infographic_UnitedKingdom.pdf, access: 2.10.2018.

Meister, J.C., & Willyerd, K. (2010). *The 2020 Workplace: How Innovative Companies Attract, Develop, and Keep Tomorrow's Employees Today*. HarperCollins.

Monitor Rynku Pracy (2017). Randstad (online). <https://www.randstad.pl/workforce360/archiwum/?i=107&th=107>, access: 23.10.2018.

Moretti, E. (2010). Local Multipliers. *American Economic Review*, 100, 1–7.

Ozbilgin, M. (2008). Global diversity management. In D. Smith, P. Peterson, & M. Thomas (Ed.), *The handbook of cross-cultural management research*. New York: Sage Publications.

Pocztowski, A. (2016). Sustainable human resource management in the theory and practice. *Journal of Management and Finance*, 14(2/1), 303–314.

Poliński, M. (2016). *Przyszłość pracy między "uberyzacją" a automatyzacją*. Warszawa.

Pricewaterhouse&Coopers (2012). Talent Mobility 2020 The next generation of international assignments. PWC (online). <https://www.pwc.com/gx/en/managing-tomorrows-people/future-of-work/pdf/talent-mobility-2020.pdf>, access: 20.10.2018.

Przytuła, S. (2014). Talent Management in Poland: Challenges, Strategies and Opportunities. In **A. Al Ariss** (Ed.), *Global Talent Management-Challenges, Strategies and Opportunities* (pp. 215–232). Springer.

Przytuła, S. (2017). Migracja, ekspatriacja tradycyjna i samoinicjowana – charakterystyka zjawisk. In S. Przytuła (Ed.), *Migracje międzynarodowe i ekspatriacja. Perspektywa indywidualna, organizacyjna, społeczno-kulturowa*. Warszawa: Difin.

PwC's NextGen: A global generational study (2013). PWC (online). <https://www.pwc.com/gx/en/hr-management-services/pdf/pwc-nextgen-study-2013.pdf>, access: 23.10.2018.

Raport Gumtree: Aktywni+Przyszłość rynku pracy (2017). Delab (online). http://www.delab.uw.edu.pl/wp-content/uploads/2017/04/DELabUW_raport_Aktywni.pdf, access: 23.10.2018.

Raport płacowy 2018. Trendy na rynku pracy (2018). HAYS (online). <https://www.hays.pl>, access: 23.10.2018.

Rego, A., Cunha, M. P., & Polónia, D. (2017). Corporate sustainability: A view from the top. *Journal of Business Ethics*, 143(1), 133–157.

Research Study: Is There Really A Generational Divide at Work? (2015). <http://www.ultimatesoftware.com>.

Robotics and its role in the future of work (2016). EY (online). [https://www.ey.com/Publication/vwLUAssets/EY-Robotics_and_its_role_in_the_future_of_work/\\$FILE/EY-robotics-and-its-role-in-the-future-of-work.pdf](https://www.ey.com/Publication/vwLUAssets/EY-Robotics_and_its_role_in_the_future_of_work/$FILE/EY-robotics-and-its-role-in-the-future-of-work.pdf), access: 12.11.2018.

Rozkwitalska, M. (2011). *Bariery w zarządzaniu międzykulturowym. Perspektywa filii zagranicznych korporacji transnarodowych*. Warsaw: Oficyna a Wolters Kluwer business.

Rozkwitalska, M. (2016). Bariery i korzyści w wielokulturowym środowisku pracy. In **M. Rozkwitalska, & Ł. Sułkowski** (Ed.), *Współpraca zawodowa w środowisku wielokulturowym*. Warszawa: Wolters Kluwer Polska.

Schuler, R., Jackson, S., & Tarique, I. (2011). Global talent management and global talent challenges: strategic opportunities for IHRM. *Journal of World Business*, **46**, 506–516.

Skórska, A. (2016). Rynek pracy. Wybrane zagadnienia. Katowice: Wydawnictwo Uniwersytetu Ekonomicznego w Katowicach.

Słownik pojęć. (2014). *Zarządzanie Zasobami Ludzkimi*, **6**, 181.

Stavrou, E., & Ierodiakonou, C. C. (2015). Entitlement to Work-Life Balance Support: Employee/Manager Perceptual Discrepancies and Their Effect on Outcomes. *Human Resource Management*, **55**(5). <http://doi.org/https://doi.org/10.1002/hrm.21745>

Sułkowski, Ł. (2017). Kapitał społeczny organizacji wielokulturowych. In **M. Rozkwitalska, & Ł. Sułkowski** (Ed.), *Współpraca zawodowa w środowisku wielokulturowym*. Warszawa: Wolters Kluwer Polska.

Talent for Europe. High-tech leadership skills for Europe (2017). http://eskills-scale.eu/fileadmin/eskills_scale/all_final_deliverables/scale_e-leadership_agenda_final.pdf

The 2017 Deloitte Millennial Survey. Apprehensive millennials: seeking stability and opportunities in an uncertain world (2017).

The future of work. White paper from the employment industry (2016). WEC. World Employment Confederation (online). <https://www.wecglobal.org>, access: 12.11.2018.

The HAYS global skills index (2016). HAYS (online). <http://www.hays-index.com/wp-content/uploads/2016/09/Hays-GSI-Report-2016.pdf>, access: 12.10.2018.

The robots are coming (2016). International Federation of Robotics (online). <https://ifr.org/ifr-press-releases/news/world-robotics-report-2016>, access: 14.10.2018.

Trendy HR. Zmiana zasad w erze cyfryzacji (2017). Deloitte (online). https://www2.deloitte.com/content/dam/Deloitte/pl/Documents/Reports/pl_Human_Capital_Trends_2017.pdf, access: 24.11.2018.

Truss, C., Shantz, A., Soane, E., Alfes, K., & Delbridge, R. (2013). Employee engagement, organisational performance and individual well-being: exploring the evidence, developing the theory. *The International Journal of HRM*, 24(14), 2657–2669.

Vertovec, S. (2006). *The Emergence of Super-diversity in Britain*. Oxford.

Vertovec, S. (2012). *Transnarodowość*. Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego.

Warwas, I., & Rogozińska-Pawełczyk, A. (2016). *Zarządzanie zasobami ludzkimi w nowoczesnej organizacji. Aspekty organizacyjne i psychologiczne*. Łódź: Wydawnictwo Uniwersytetu Łódzkiego.

Williams, S. (2016). Future skills update and literature review (online). <http://www.iftf.org/futureskills/>.

Wisskirchen, G. (2016). *Digitalization and Automatization and Their Impact on the Global Labor Market* (online). <https://www.ibanet.org>, access: 24.10.2018.

Workforce of the future. The competing forces shaping 2030 (2017). PWC (online). <https://www.pwc.com/gx/en/services/people-organisation/publications/workforce-of-the-future.html>, access: 25.10.2018.