EVOLUTION OF THE LABOUR MARKET ORGANIZATION – THE ROLE AND POTENTIAL OF HYBRID WORK FOR THE GENERATION Z

Paweł MODRZYŃSKI[1*], Aleksandra KOLEMBA[2], Alicja REUBEN[3]

[1] Bydgoszcz University of Science and Technology; pawel.modrzynski@pbs.edu.pl,
ORCID: 0000-0003-1861-0643
[2] Bydgoszcz University of Science and Technology; aleksandra.kolemba@pbs.edu.pl,
ORCID: 0000-0002-1698-7378
[3] New York University Abu Dhabi; alicja.reuben@nyu.edu, ORCID: 0000-0002-3975-2192
* Correspondence author

Purpose: The aim of the paper is to determine how the development of digital competences affects the organization of the labour market.

Design/methodology/approach: The authors focused on combining two areas, i.e. the object - students (generation Z) and the subject - the preferred form of work organization in the future. The conducted research shows the correlation of digital competences of the Z generation with the possible organization of business models of the labor market. The survey used the survey method, the survey technique, the research tool of which was a questionnaire.

Research limitations/implications: Generation Z are characterized by excellent knowledge of using modern technologies and have digital competences, and the use of mobile devices has become an element of their everyday life. A characteristic feature of this generation is its mobility, which also translates into preferences regarding the future work model. The experience gained during remote learning can be used by future employers to effectively implement the hybrid work model, in which the temporary possibility of remote work is the preferred form of work for the Z generation. Undoubtedly, the issue that requires further research is the effectiveness of management and motivating employees who perform part of their work. tasks in the form of remote work.

Originality/value: The review of the research carried out so far, the analysis of the scope of their objective and subjective scope as well as the indicated limitations of the research allowed the authors to identify key research areas that should be the subject of further analysis. The key factor determining the future of remote (and hybrid) work are digital competences, understood as the ability to use devices and applications based on Internet communication. The authors drew attention to a research gap that should be analyzed, and which could significantly enrich the existing research - the subjective scope of the research should include a group of people who during the pandemic gained extensive experience in remote

communication and work (learning) remotely, and who potentially are perfectly able to use modern technologies - a group of current students.

Keywords: Digital Business Transformation, business models, hybrid working, management, COVID-19, Generation-Z.

1. Introduction

The period of the COVID-19 pandemic was an organizational challenge for many companies, organizations and entities, in which remote work tools were implemented on a large, previously unprecedented scale. A lot of research to date has focused on the effectiveness of this form of completion of tasks, whether in the context of work, its effectiveness, cost optimization, or in the context of education. As Mosteanu (2020) points out, this gave rise to pedagogical tools such as digital campuses and online learning in general. However, education was equally affected by the rise of digital technologies as was the corporate workplace. These technologies, both in the school and work environments, were uniquely tried and tested during the COVID-19 pandemic. When this unique phenomenon took place, many educational facilities and businesses were forced to go online and operate remotely. Remote work and the shift towards hybrid work environments has been the subject of research for many years (Baker et al., 2007; Ruth, Chaudhry, 2008; Shin et al., 1999). The framework of the theoretical background has been divided into three areas: remote work, remote learning and generation Z in order to precisely define the context of the research issues.

Our study focuses on undergraduate and graduate education not only because we believe this is where technology has the most use and impact but also because this is where it is the most sophisticated. Our study also provides insight into travel-related aspects of remote work. We learn about the points of view of students regarding the digital world as well as their repercussions from the COVID-19 pandemic. This is important if we are to move forward in striving to understand the digital world and its impact on educational outcomes for hybrid and remote environments. Moreover, this paper promotes many areas of further study. For example, questions of work-life balance may include if novel technologies will allow us to bridge comfortable living spaces with enticing work. Issues such as city organization or landscape perusal may also be affected when we think about redesigning metropolitan spaces.

The paper contains three hypotheses that are tested using survey methodology on a large sample of participants. Demographics span various geographic locations and the primary age group is 21-25 years of age. Findings make conclusions and suggestions that have implications for a variety of forms of labor organization. The primary finding is that participants prefer hybrid work over remote or traditional forms.

2. Literature

Remote work

Organizational changes occupy a unique place in management sciences. As Bejinariu et al. (2017) noted they are undoubtedly multithreaded, complex and difficult to implement. They cause that the extant patterns of action are replaced by new ones, the effect of which no one can predict. However, Hallencreutz & Turner (2011) indicated the most important thing is that such a change should not only be caused by changes in the environment, but also Choi (2011) noted take into account its complexity and multi-context nature, because the source of changes are various situations that may evolve and change existing states.

Many scholars (Bailey, Breslin, 2021; Kiers et al., 2022; Men, Robinson, 2018; Ruck, Men, 2021), have pointed out that looking ahead, the changes that are taking place will mainly affect those in the area of work organization - from management, through setting work goals to communication as well as in the competency and social context of employees. Changes accompany organizational life and require a response. As Amis and Greenwood (2000) portrayed those companies that are able to predict them and use their potential have a chance for development.

Gardner and Matviak (2020), Mueller-Langer and Gomez (2022), George et al. (2020) emphasized the changes that were first brought about by the pandemic were related to lockdown, maintaining social distancing, and as a consequence, many employees switched to remote work. Asadzadeh and Pakkhoo (2020), De`, Pandey and Pal (2020) indicated avoiding the spread of the Covid-19 pandemic has forced the whole world to use information and communication technologies in novel ways. As He at al. (2021) noted these tools became widely used in work and schools. Kumar et al. (2020) presented, that face-to-face business meetings, school education and administrative work have been transferred to the virtual world. Ofosu-Ampong & Acheampong (2022) indicated, that remote work has therefore become a necessity to achieve the company's goals. The dynamically developing pandemic forced the learners and the majority of working people to accept the limitations.

As indicated in the Gartner report (Fasciani, Eagle, Doherty, 2021), more than half of entrepreneurs in 2025 will use online meetings. All activities must be compatible with IT processes, and this in turn poses a challenge for interoperability, building (e-) trust or the ability to use digital technologies (Szymanowski, 2016). As indicated in table 1, organizational changes will be necessary at every stage of business management and will cover various aspects.

Table 1.

Potential area and scope of organizational changes after the pandemic - literature review

Author	Areas of change	Scope of organizational changes
(Amis J., Greenwood R., 2020)	Front-line Staff, well-paid knowledge workers and managers	Values and interests, ideas
(Junnaid, M.H., Miralam, M.S., Vikram, 2020)	Managers' telework experiences, leadership style	Attitudes, practices, organizational commitment, formal interaction,
(Chen, Sriphon, 2021)	Relationships between employers and employees	Building incorporates trust, collaborating, and sharing leadership
(Chatterjee et al., 2022)	Workplace, strategy	Mobility and flexibility
(Ofosu-Ampong, Acheampong, 2022)	Working system	Social perspective for shaping work experience
(Bick et al., 2020)	Work from home	Occupation and age of employees, industry business conditions, demand
(Bonacini et al., 2021)		Income, inequality

Source: own study based on the conducted research.

The restrictions that were introduced resulted in a change in social behaviour in all areas of the organization's functioning. Physical and mental changes in the implementation of daily professional duties have taken a new face that requires adaptation. As indicated Chen and Sriphon (2021), Roemer et al. (2021), the greatest problem of organizational changes results from the lack of positively shaped organizational relationships rife with trust and commitment.

Work, which until the time of the pandemic was for many a place of performance of duties, changed the location - and this made people doubt themselves - both in terms of task completion and the degree of commitment (Chatterjee, Chaudhuri, Vrontis, 2022; Ofosu-Ampong, Acheampong, 2022; Ng et al., 2022). In addition, the pandemic drew the attention of researchers to the existence of a relationship between the work performed (competences, knowledge that employees have) and the amount of remuneration (Bick et al., 2020; Martins et al., 2021) as well as the tendency to work from "home" (Bonacini et al., 2021). The thread of economic issues began to intertwine with what is invisible and very individual.

The issue of working from home, remotely, online has been the subject of research for many years (Shin et al., 1999; Baker, Ellen, Avery, Gayle, Crawford, 2007; Ruth, Chaudhry, 2008). They saw potential in remote work, but there was no phenomenon that would trigger it. As the Ofosu-Ampong & Acheampong (2022) noted so far, technologies have served people in their everyday personal and professional life, however, the way they are used has not fallen into today's framework. As Kagermann (2015) pointed out organizations that, in their strategic perspective, took into account the approach to knowledge developed in a classic way (direct contact), had to focus on digital technologies. Moreover, Mansi (2013) argued that the digitization of enterprises has become a necessity not only for survival, but also for development in the market arena.

According to OECD research (OECD, 2022), the time of the pandemic did not cause a sharp increase in the access to and use of information and communication technologies by employers and employees. It can be seen that investments in this area were carried out in a balanced and stable manner. Therefore, it can be assumed that access to technology has not become the

problem, but the problem was rather people's attitude to new working conditions. Research (2022 State Of Remote Work, 2022; More Remote Work Opportunities May Make Suburbs More Desirable, 2020; State Of Remote Work 2018, 2018; State Of Remote Work 2020, 2020; Dixon, 2019; Owl Labs & Global Workplace Analytics, 2021) shows that few in the world have worked from home, and since March 2020, more than half have used this solution.

The threat to the lives of the human population became this stimulus, and day-to-day remote work became the form of work organization across the globe. We will feel the effects of the pandemic in a few years, and the direction in which they develop will depend on the accompanying factors. The pandemic became the impetus for the acceleration of what was inevitable. It provided us with a new look at the possibilities of adaptation in crisis situations. Great shifts in ways of thinking or acting begin with the individual and can arise from small, sudden changes. Undoubtedly, they require new patterns of conduct, because what has been the beaten path so far becomes an e-book open to new solutions.

Remote learning

During the first two decades of the 21st century, the use of information technology has sky-rocketed in education. Starting with Apple's introduction of the Macintosh in 1984 and its promotion in primary school education in the USA, through presentation technologies such as PowerPoint and the use of smartboards, finally to the implementation of video-communication technologies such as Zoom in 2011 in classroom setting, technology has been at the forefront of education in the past 40 years. Van der Zwaan (2017) claimed that the focus on technology has been fundamental in growing knowledge during this generation and continues to develop vehemently throughout the worldwide landscape. This includes all levels of education, from primary school to graduate studies. It is perhaps dubious at which level of education is information technology most salient. Grimes & Warschauer (2008) noted that while students rely on their laptops and tablets to take notes, complete assignments and keep track of learning, the software packages available for their use have proliferated. It is impossible to name all of the burgeoning software currently being used by students since novel ones are emerging regularly. Their applications include note-taking by voice-recording and hard-writing recognition to blended reality use of photography and text scanning. Many of them are fundamentally tied to understanding and ability to apply these novel technologies.

Some key statistics about remote learning (UNICEF.org) include in the period between March 11, 2020 and February 2, 2021, schools have been fully closed for an average of 95 instruction days globally, which represents approximately half the time intended for classroom instruction. Of these 214 million students, 168 million in 14 countries missed almost all classroom instruction time due to school closures.

It is important to note the difference between online learning, which has been present in education for a couple of decades and remote learning, which is the emergency method that has been used during the Covid-19 pandemic. So Mosteanu (2020) asked the question is whether the digital campus, including procedures such as online learning, are useful as pedagogical tools? These issues are fundamental to understanding how to implement digital learning further as it becomes more and more important. It is necessary to understand how online presentations of coursework and online discussion contribute to learning. To do so, we have to explore the extent of use of these technologies among student populations and their understanding of how they are applied (see table 2).

Table 2.
Characteristics of the remote learning - literature review

Author	Summary of Key Points
(Carter Jr et al., 2020)	Strategies of the self-regulated learning (SRL) framework for K-12 students learning in online environments to support remote learning with online and digital tools during the COVID-19 pandemic. The main types of strategies that have emerged from previous studies include asking students to consider how they learn online, providing pacing support, monitoring engagement and supporting families.
(Morgan, 2020)	In response to the spread of COVID-19, a new coronavirus, many U.S. schools have implemented remote learning. This approach to education can prevent students from experiencing setbacks during school closures. However, some schools do not have enough resources to provide learning opportunities for students, and not all children have internet access at home. Schools that can implement online learning equitably can improve their approach if they follow the guidelines of reputable organizations such as the International Society for Technology in Education.
(Ali, 2020)	In light of the rising concerns about the spread of COVID-19 and calls to contain the Corona Virus, a growing number of tertiary institutions have shut down in regards to face-to-face classes globally. The Corona virus has revealed emerging vulnerabilities in education systems around the world. It is now clear that society needs flexible and resilient education systems as we face unpredictable futures. A meta-analysis methodology was adopted for this study and pertinent literature was visited to capture the essence of continued learning during these unprecedented times. Findings reveal that universities worldwide are moving more and more towards online learning or E- Learning. Findings also reveal that apart from resources, staff readiness, confidence, student accessibility and motivation play important function in ICT integrated learning. This exploratory paper proposes that staff members should use technology and technological gadgets to enhance learning especially during these exceptional times. Findings also propose online and remote learning as a necessity in times of lock downs and social distancing due to COVID-19 pandemic. It also provides a strong platform for further research.
(Heitz, Laboissiere, Sanghvi, 2020)	This forced and abrupt move to remote learning has not been easy. However, it can provide institutions with an opportunity to experiment and innovate. Piloting new approaches and building on practices that are proved to work can help create positive and enduring changes. Universities may find that they have a new remote-learning capability that can be integrated with on-campus instruction, to everyone's benefit, when this crisis has passed.

Source: own study based on the conducted research.

It is key to underline the importance of trust within the world of educational digitalization. This should be what guides proliferation of technologies, rather than control over the resources. As indicated by Peters et al. (2010) we should strive to create an environment where students feel comfortable and confident in their learning and ability to apply technologies to educational issues.

In the popular press, the criticism for remote learning is jarring. Hobbs and Hawkins (2020) reported that teachers interviewed refer to *building a plane and flying it at the same time*. The COVID-19 pandemic crisis provided a methodological backdrop for studying the remote learning phenomenon and studies have proliferated since its onset in March 2020. Several studies (Garbe et al., 2020; Roos et al., 2021; Gayatri, 2020; Ribeiro et al., 2021) emphasized the importance of equipping parents with the appropriate tools to overcome obstacles in remote learning and providing useful projects for students to undergo. The role of technology is fundamental here. Parents must be proficient in adopting technology and applying it to their everyday lives in order to be able to assist their children in remote learning.

When we move to university and academic online learning this adoption of technology is also key to understanding how we can prevail in this new environment. The structural changes necessary in our approach to learning are incredibly subtle and can also be significant. Organizations have to shift their use of technology in order to substantially coexist with the new state of things. The future of remote learning is not set in stone, but it is surely going to forge a path toward domination. It is key for us to understand the precise mechanisms in play when integrating technology to remote learning. This study, among others, seeks to understand how digitalization will impact the future of students who have been raised with remote learning and how their use of technology will affect the structure and purpose of the working environment.

Generation Z

For many years, researchers (Lyons, Kuron, 2014) have been studying the phenomenon of generational diversity, looking for differences resulting from the conditions that shape their attitudes and behaviour. Several scholars (Wescott, 2017) have characterized generations since the 1940s. Generational diversity undoubtedly contributes to the development of the organization (Bhayana et al., 2021; Ardueser, Garza, 2021; Urick et al., 2017). Moreover, others (Lapoint and Liprie-Spence 2017; Smith and Garriety 2020) indicated that their concept is derived from age differences (Chillakuri, Mahanandia, 2018; Srinivasan, 2012) from personality traits and from a situational approach and socialization process (Baum, 2020; DelCampo et al., 2017; Singh, Dangmei, 2016).

The 21st century brought technological development in which the youngest generation had full access to the Internet and tools integrated with it (Burton et al., 2019). Generation Z, also known as generation C (Hardey, 2011), iGen (Maioli, 2016), XD, digital natives (Bennett et al., 2008) are people born at the turn of the 20th and 21st centuries (after 1995), constituting about 26% of the population (Wise, 2022).

Attempts to characterize generation Z are largely based on theoretical considerations, because in recent years this generation could be assessed through the prism of their adolescence. However, we are now at a point where Generation Z begins to enter the labor market with potential, and therefore they will become verifiable. Table 3 reviews the literature in this area.

Table 3.
Characteristics of the Z generation - literature review

Author	Summary of Key Points
(Hardey, 2011)	People who are creative, want a fast career, like to create content that will bring them followers, always connected to the Internet via phones, susceptible to content posted on the web.
(Shatto, Erwin, 2016)	Children of two or multiracial parents, interpersonal relationships built on the basis of different cultural perspectives, accepting and open to differences, perfectly coping with technology, high activity on social networks, streaming, relying on mobile technology, learning through observation and practice rather than reading, searching for information from Google™ and believing in their uncritical credibility, quickly get frustrated, short attention span.
(Singh, Dangmei, 2016)	A generation with an informal, individual and simple and direct way of communicating, and social networks are an essential part of their lives. Entrepreneurial, trustworthy, tolerant, optimistic about the future, although they are impatient and quick in thinking. They are not very ambitious and addicted to technology, and have a low concentration of attention. They are benefit-oriented, and at the same time conscious and oriented towards environmental protection (CSR) and no waste. Identity is shaped by technology; they lack the ability to solve problems. In addition, they have analytical and decision problems. Transparency, independence, flexibility and personal freedom are non-negotiable aspects of their work ethics.
(Dimock, 2019)	People with access to mobile devices, WiFi networks and mobile broadband services. Access to social networks, social media. With constant connectivity as well as entertainment and communication on demand. The views of this generation are not yet fully formed and are evolving as they grow.
(Burton et al., 2019)	A generation that has access to the Internet, social media and smartphones all their lives. This translates into their awareness of social networks, marketing and advertising. Well informed, they are afraid of being unemployed and of the financial crisis and therefore they are frugal.
(Christensen et al., 2018)	Easy access to instant information. They do not know life without the Internet, smartphones and social media - which are normal communication and information-seeking tools. Conscious of their own brand, independent, enterprising, but also pragmatic. They expect broadly understood flexibility of work. Teamwork-oriented and result-oriented. From birth, they are accompanied by natural disasters, international terrorism, recession, and war in Europe.
(Smith, Garriety, 2020)	A generation with a tendency to independence and flexibility. People who do not recognize authority and hierarchy. They are lazy but intelligent.

Source: own study based on the conducted research.

Generation Z is focused on using modern technologies during every moment of their lives. It may seem that this generation should be able to use these technologies without any problems in order to balance professional and personal life. Their employers face a challenge because this generation is characterized by frequent events with traumatic consequences - ranging from climate change to armed conflicts. It seems that the generation Z will require constant changes in shaping their professional attitude, which will be driven by constant stimuli forcing them to be active in meeting them. Therefore, it becomes reasonable to examine the expectations of the youngest adult generation in order to initially verify the directions of changes that should be made for the work of this generation to be effective and efficient.

3. Empirical part

Research model and hypotheses development

The research on remote work (including hybrid work) conducted so far covers multifaceted areas. Ofosu-Ampong and Acheampong (2022), as well as Saura et al. (2022) and Mueller-Langer and Gómez-Herrera (2022) focused on the use of modern technologies in the organization of remote work. Undoubtedly, the period of the pandemic caused by the Covid-19 virus forced enterprises, public institutions and other entities to carry out their statutory tasks using communication and remote work tools. Ofosu-Ampong and Acheampong (2022) studied the impact of such factors as: competitive advantage, compatibility level and complexity of the technologies used, organizational structure, support for managerial staff or employees' competences on the implementation of a remote work system. In turn, Saura, Ribeiro-Soriano and Saldana (2022) pointed out that during the Covid-19 pandemic, there was an increase in the use of modern technologies, and their implementation significantly accelerated, and this had a significant impact on the stress level of employees. Mueller-Langer and Gómez-Herrera (2022), analyzing the costs of remote and traditional work in the short and long term, indicated the significant impact of the development of modern technologies on reducing the costs of remote work and its increasing use in the future. Tramontano, Grant and Clarke (2021) pointed to the key role of employee competences in building the digital resilience of an organization (enterprise) to risks and increasing the benefits of implementing remote work, including its effectiveness and productivity. According to Tramontano, Grant and Clarke (2021), it is easier for people with digital competences to achieve the so-called life balance.

Many scholars, including Chatterjee, Chaudhuri & Vrontis, (2022) have focused on researching the effectiveness and efficiency of remote work management. Modern technologies have allowed many enterprises and organizations to function continuously in times of turbulent environment and threats (Covid-19), and the experience gained in this field will result in implementation of remote work as a permanent model of work organization. The financial and technology sectors have already implemented the work from home culture model, which enables employees to perform their job duties without the need to travel to work. The key element of this system is remote access to the IT systems of these entities (Carnevale, Hatak, 2020; Hodgson, 2020; Mariani, Fosso Wamba, 2020).

The comparison of work carried out in a traditional way to remote work made it possible to compare the effectiveness of both of these forms. Martinsa, Góesa & Nascimento (2021), analyzing the labor market in Brazil, noticed that every fifth employee performs work that could be successfully performed remotely, if he had been equipped with the appropriate tools. In many of the cited studies, the aspect of social relations, mutual contacts between employees or team building efficiency is discussed in a smaller or broader context. Jämsen, Sivunen & Blomqvist, (2022), while researching the public sector in Finland, noticed that for most employees' mutual

relations and communication in remote work was a significant challenge. When designing the research, the authors also paid attention to the aspect of protection and impact on the environment of remote work. The work (Fabiani et al., 2021; Soroui, 2021) who analyzed greenhouse gas emissions resulting from, inter alia, transport restrictions during the Covid-19 pandemic and remote work organization. They pointed out that the greater the distance between the respondent's home and workplace, the higher was the result of accepting remote work, declared by them. Moreover, significant factors influencing the acceptance of remote work included: higher income and a better (healthier) lifestyle. Fabiani et al. (2021) indicate that from an environmental point of view, remote working is always sustainable when long daily commuting (over 10 km) is avoided. In summary, judicious use of remote working could reduce the environmental impact of any organization that employs office workers, as well as improving their job satisfaction and lifestyle.

The review of the research carried out so far, the analysis of the scope of their objective and subjective scope as well as the indicated limitations of the research allowed the authors to identify key research areas that should be the subject of further analysis. It seems, therefore, that the key factor determining the future of remote (and hybrid) work are digital competences, understood as the ability to use devices and applications based on Internet communication. Moreover, the subjective scope of the research conducted so far included employees of various sectors of the economy, and the objective scope focused on the comparison of specific factors of remote work with traditional work. The authors drew attention to a research gap that should be analyzed, and which could significantly enrich the existing research - the subjective scope of the research should include a group of people who during the pandemic gained extensive experience in remote communication and work (learning) remotely, and who potentially are perfectly able to use modern technologies - a group of current students. The above-described literature review and theoretical considerations lead us to the following research hypotheses:

H1: Digital competences and openness to the use of modern technologies are of key importance in the future labour market.

    H1a: The distance learning experience of students will have a positive impact on the development of remote work in the future.

    H1b: Remote work will expand the scope of the labor market.

Materials and methods

The scope of the research was divided into two main areas, which allowed to verify the hypotheses and research goals put forward in the research. The first area concerned the examination of digital competences of students, while the second area allowed us to learn about the respondents' expectations regarding the organization of future work and the factors determining the choice of the form of future work.

The survey used the survey method, the survey technique, the research tool of which was a questionnaire. The questionnaire consisted of three parts - the introduction, the main part consisting of 19 questions and the demographic part, specifying the demographic and social characteristics of the respondent. The survey was conducted via the Internet and the questionnaire was prepared on the Qualtrics online platform. The study was conducted in February and March 2022.

470 students from the following countries participated in the study: Poland (23.4%), Germany (14.5%), Turkey (11.9%), United Arab Emirates (11.7%), Italy (8.9%), Ukraine (6.6%), Spain (6.2%), Lithuania (6.0%), the United States (4.3%), Thailand (3.4%) and Estonia (3.2%). The group of respondents included 61.3% of women, 35.5% of men and 3.2% of respondents refused to provide this information. The survey was mainly attended by young people, as 79.6% of respondents aged up to 25 were students of universities (48.7%), technical universities/universities (33.8%), and schools of economics, business and law (5.3%). Most of the respondents participate in classes conducted in their mother tongue (71.9%), while for 28.1% of students, the language of instruction is English (see table 4).

Table 4.
Demographic information of participants

Demographic	Characteristics	Frequency	Percent
Gender	Male	288	61.3
	Female	167	35.5
	Prefer not to say	15	3.2
Age	Up to 20 years old	93	19.9
	From 21-25 years old	281	59.7
	From 26-30 years old	28	5.9
	From 31-40 years old	30	6.3
	From 41-50 years old	34	7.2
	Over 50 years old	4	0.9
Nationality	United Arab Emirates	55	11.7
	Germany	68	14.5
	Estonia	15	3.2
	Spain	29	6.2
	Italy	42	8.9
	Lithuania	28	6.0
	Poland	110	23.4
	Thailand	16	3.4
	Turkey	56	11.9
	Ukraine	31	6.6
	United States	20	4.3
Education	Business School or Law School	25	5.3
	Full University	229	48.7
	Liberal Arts College	15	3.2
	Medical School	8	1.8
	Other	34	7.2
	School of Technology/Polytechnic	159	33.8
Language of education	English	132	28.1
	Other	338	71.9

Source: own study based on the conducted research.

The scope of the research - including a group of students, i.e. people up to 25 years of age (79.6% of respondents), made it possible to analyze and learn about the competences and preferences of choosing the form of a work model by the so-called Generation Z - a generation that does not know life without the Internet, social media, which is open and very mobile. The conducted survey thus filled the research gap in the selection of the participant group. The review of the literature and the analysis of the research conducted so far focused on various aspects of remote work carried out by working people who, mainly due to the COVID-19 pandemic, were forced to perform their previous professional duties remotely. Thus, research on work efficiency (Martins et al., 2021) or mutual relations of employees (Carter Jr et al., 2020; Jämsen et al., 2022; Jämsen, Sivunen, Blomqvist, 2022; Yang et al., 2021) focused on comparing work carried out in a traditional way with remote work.

The current generation of students, firstly, is used to using modern technologies on a daily basis, and secondly, they have extensive experience in remote learning, working in decentralized teams and remote communication, which can be successfully used in future work. When designing the research, it was assumed that what is new and a challenge for the older generation - the use of instant messaging and online platforms for communication and work, for young people - generation Z, is something completely natural (Sakdiyakorn et al., 2021). Figure 1 presents selected research questions assigned to the hypotheses posed in the research.
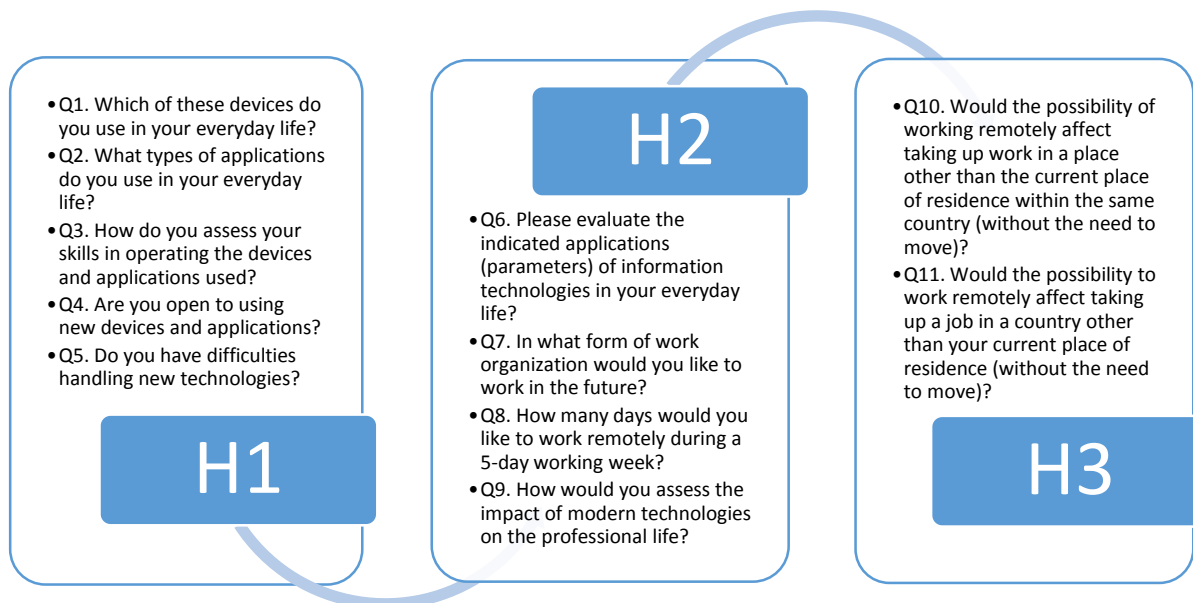

Figure 1. Assigning selected research questions (Q1-Q11) to individual research hypotheses.

Source: own study based on the conducted research.

Spearman's rank correlation coefficients were used to verify the research hypotheses. Table 5 contains a summary of the results of individual correlations.

Table 5.
A list of correlation indicators for the verification of research hypotheses

Hypothesis	Questions	Spearman's correlation index	Significance interval
H1	Q1	0.1940	0.0500
	Q2	0.2185	0.0150
	Q3	0.1535	0.0268
	Q4	0.2035	0.0032
H2	Q6	0.1668	0.0233
	Q7	0.2046	0.0028
	Q8	0.4810	0.0000
	Q9	0.2249	0.0011
H3	Q10	0.2249	0.0011
	Q11	0.2057	0.0029

Source: own study based on the conducted research.

The use of the Spearman's rank correlation allowed to state that all the studied variables, such as: digital competences, openness to the use of modern technologies, experience in the field of distance learning, are statistically significant for the choice of the form of work organization. The correlation index shows a relatively small positive correlation and is in the range [0.1535; 0.4810].

Discussion

The analysis of the collected results allows for a broader look at the potential of remote work as a future, possible form of work organization. The research results for selected questions and research areas, which were particularly important in the process of formulating and verifying the research goals and hypotheses, are presented below and presented in detail. The mobility of the young generation translates into the use of devices in everyday life. The smartphone has become the most universal and widely used device today - over 84% of respondents indicated that they use their smartphone constantly, and for comparison, the laptop is used with the same frequency by over 34% of respondents (see figure 2). When designing solutions for remote communication, used for study or work, it should be taken into account that smartphones are becoming the most important mobile devices.
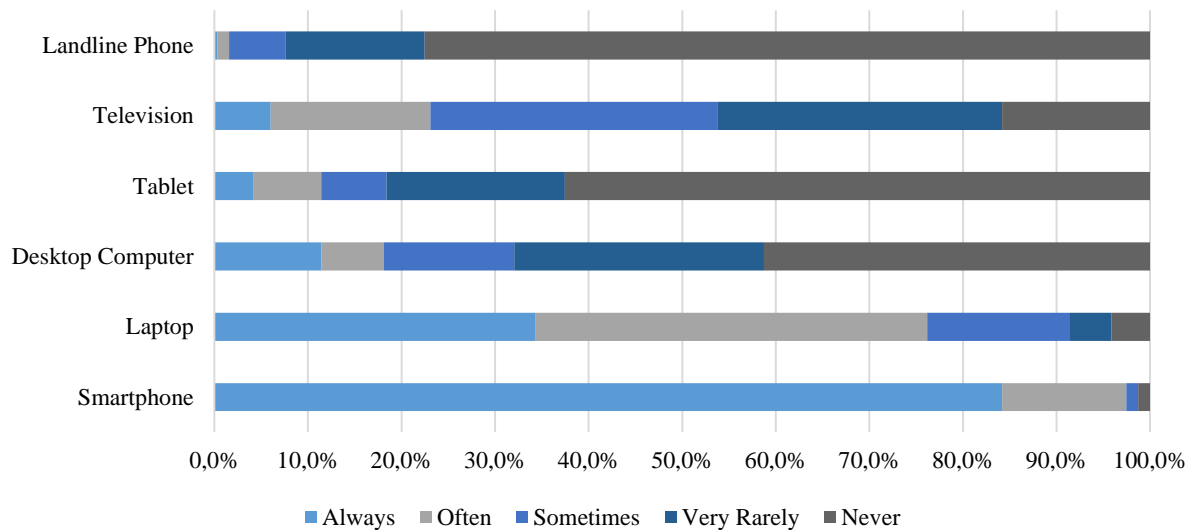
Figure 2. The use of Internet tools in everyday life in the opinion of the respondents.

Source: own study based on the conducted research.

Over 84% of the surveyed participants rated the ability to use modern technologies and devices very highly. Only 3% of the respondents indicated that they did not have any skills in this area. Ofosu-Ampong and Acheampong (2022) indicated in their research that people open to technological innovations are also more open to the implementation of modern solutions in companies. The research conducted by the authors also confirmed this thesis. As many as 87.0% of the surveyed respondents described themselves as people open to the use of modern technologies. Moreover, 73.0% of the respondents did not mention any difficulties with operating and using modern technologies. The openness of respondents to the use of modern technologies translates into the assessment of its usefulness. Over 81.0% of respondents indicated the use of modern technologies for learning or work carried out from anywhere. This aspect of mobility was the most important for the surveyed group of respondents. The use of technology for learning or remote work was positively assessed by 78.7% and 77.8% of the respondents, respectively. The next places in the assessment were: use in business communication (76.2%), private (74.0%), source of entertainment (69.2%) or access to cultural events (63.8%). Many researchers (Modrzyński et al., 2020; Yang et al., 2022; George et al., 2020) indicated the occurrence of health problems resulting from too long working time at the computer, which was also confirmed by the research conducted by the authors. However, the level of health complaints is not the most frequently indicated problem resulting from the use of modern technologies. The most frequently reported problems were: spending a lot of time in front of a computer/smartphone (57.0%), the problem of dependence on modern technologies (41.3%) or problems with concentration (38.7%) (see figure 3).
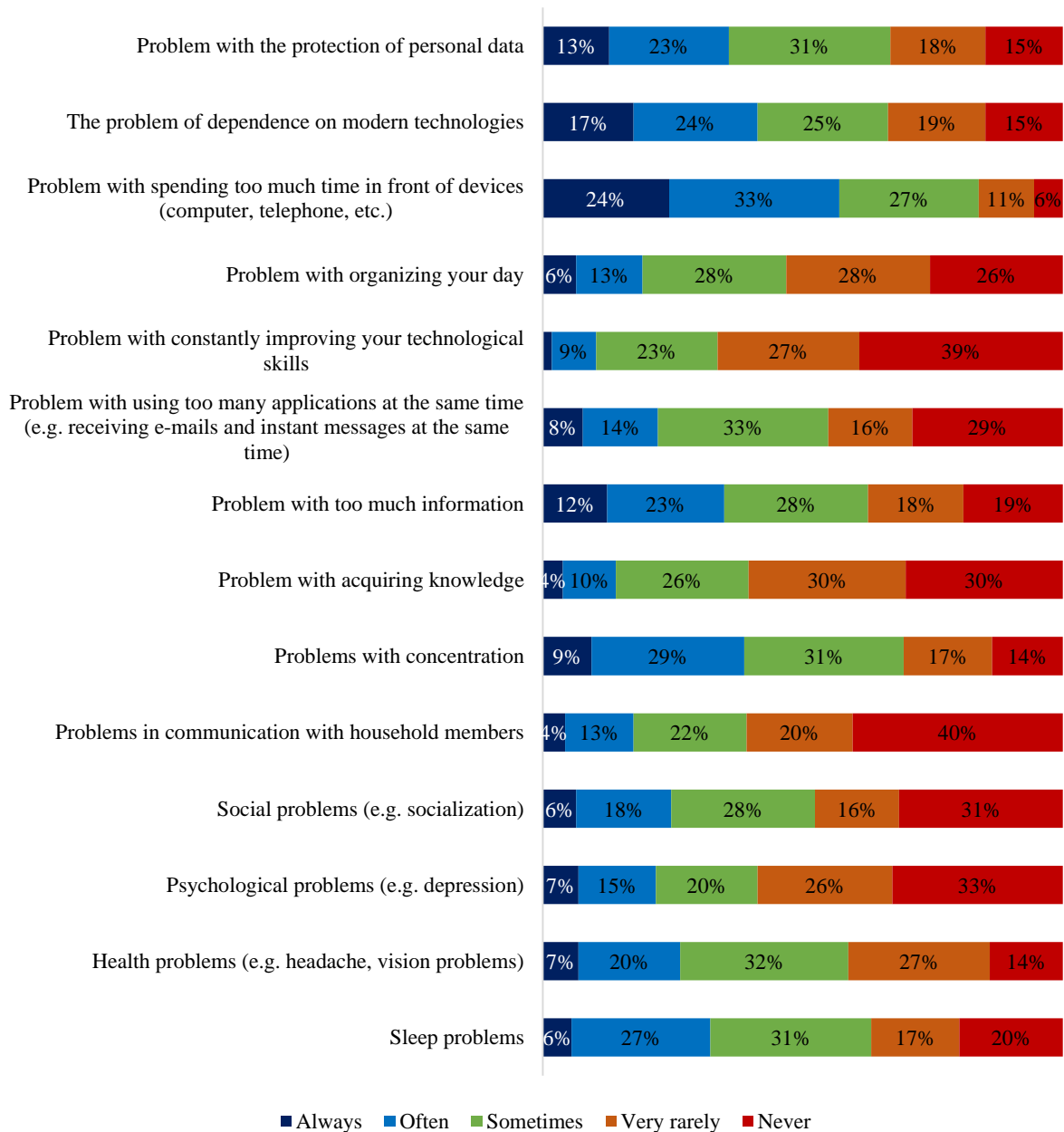
Figure 3. The frequency of occurrence of problems related to the use of modern technologies in the opinion of the respondents.

Source: own study based on the conducted research.

An interesting fact is that the surveyed group, i.e. the respondents belonging to the generation Z, rated the positive aspect of modern technologies in terms of professional matters much higher, i.e. the possibility of remote learning and, in the future, remote work, than in the context of personal life. The respondents indicated that social relations should be implemented in direct contacts (see figure 4).
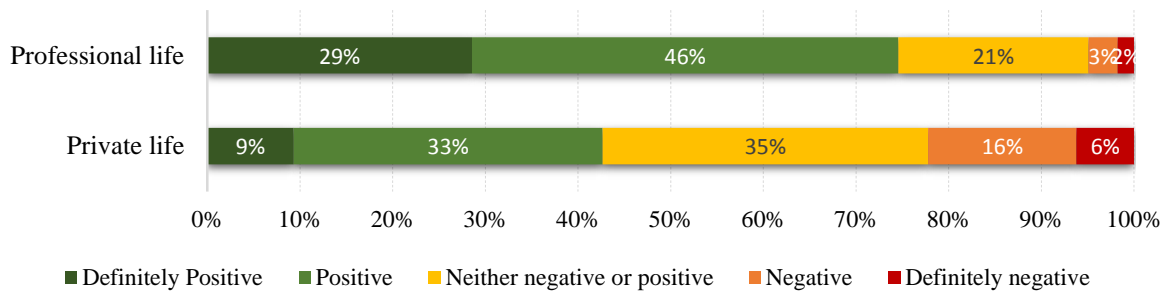
Figure 4. The influence of modern technologies on professional and private life in the opinion of the respondents.

Source: own study based on the conducted research.

Ranking use of modern technologies high in professional life translated into the choice of the preferred model of work by the respondents. Hybrid work and remote work are possible future scenarios for the evolution of the organization of work systems. Nearly 65% of respondents declared the will to work in the form of hybrid work and 7% only in the form of remote work, every fifth respondent (22.5%) would like to work in the traditional model - at the employer's premises. In the group of respondents who highly rated their digital competences, i.e. the skills in using modern technologies, the interest in the modern form of work organization is greater - hybrid work 68.0% and remote work 9.7%. If the analysis takes into account the parameter for assessing the respondents 'openness to the use of modern technologies, then an increase in respondents' attention with hybrid (72.4%) and remote (8.6%) work can also be noticed. In this group of respondents, the traditional form of work enjoys the least interest (14.3%). It is interesting that for the analyzed generation Z, hybrid work is the preferred form of work, regardless of the low assessment of own digital competences or the reluctance to use new technologies (see table 6). Therefore, the presented research indicates that the mobility attributed to the characteristics of Generation Z, to which the surveyed group of respondents belongs, is a key feature of this group, which has a significant impact on the perception of the world.

Table 6.
Preferred forms of work organization in the opinion of the respondents

Work organization	Total	How do you assess your skills in operating the devices and applications used? - Very good answers only	Are you open to using new devices and applications? - Definitely yes answers only	Do you have difficulties handling new technologies? - Definitely no answers only
Hybrid work	**64.8%**	68.0%	72.4%	68.6%
Remote work	**7.0%**	9.7%	8.6%	6.7%
Traditional work	**22.5%**	17.5%	14.3%	19.0%
I have no opinion	**5.7%**	4.9%	4.8%	5.7%

Source: own study based on the conducted research.

The organization of hybrid work can be varied. There are various configurations of combining traditional office work and remote work. In the studied group, the opinions of the respondents were also divided. However, the idea of hybrid work can only be considered in a model in which we will work from home or other place for at least two days. Less than 1.9% of respondents are interested in hybrid work in which we work remotely only one day a week. Every third respondent prefers hybrid work with 3-day remote work, and every fourth with 2-day remote work. Also, every fourth respondent indicated the possibility of hybrid work, in which one week is carried out entirely remotely, and the next one is carried out traditionally in the company's premises (see figure 5).
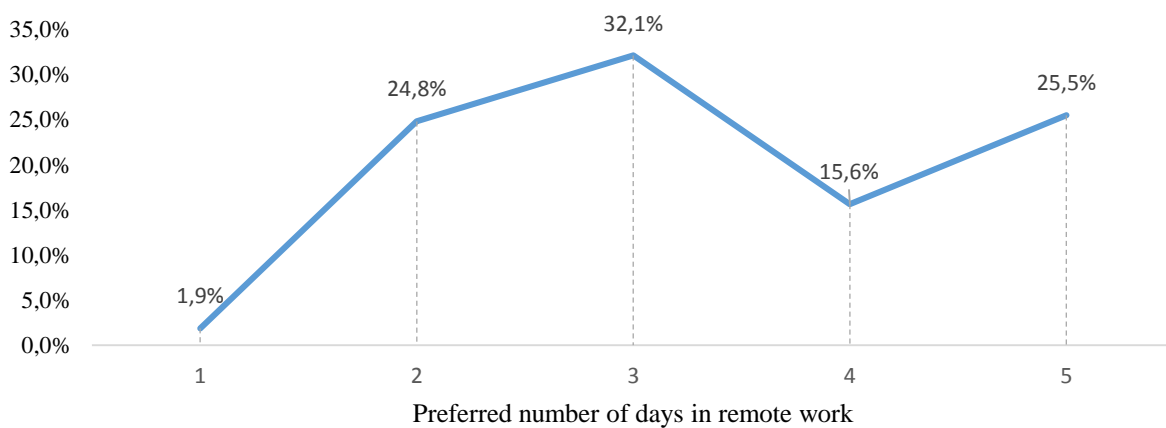

Figure 5. Preferred number of days in remote work in hybrid work in the opinion of the respondents. Source: own study based on the conducted research.

The evolution of the form of work organization towards a wider use of the hybrid model, in which employees have to commute less frequently, will have significant implications for urbanization processes. Sustainable urban development is one of the main concerns of policy-makers, and the growing urban population and urbanization have caused a number of socio-environmental impacts on people (Kalhor, Emaminejad, 2019). So far, the development of cities has been closely related to the increase in the number of inhabitants, which resulted in a number of negative effects, including an increase in CO2 (Sufyanullah et al., 2022). So, will hybrid work change this trend? According to 92% of respondents, the reduction of the costs of commuting to work is the main advantage of hybrid work. In addition, 86% of respondents indicate greater flexibility of work and on the days when we work remotely, we save not only money for commuting, but most of all we save time for commuting (84% of respondents). Remote work, e.g. from home, favors a more relaxed business etiquette (80%), and thus reduces the time needed to prepare for work (73%). A decisive challenge for remote and partially hybrid work are aspects related to human resource management in an enterprise, covering such areas as: building social relationships, motivating employees, implementing new duties or building systematic work habits (see figure 6).
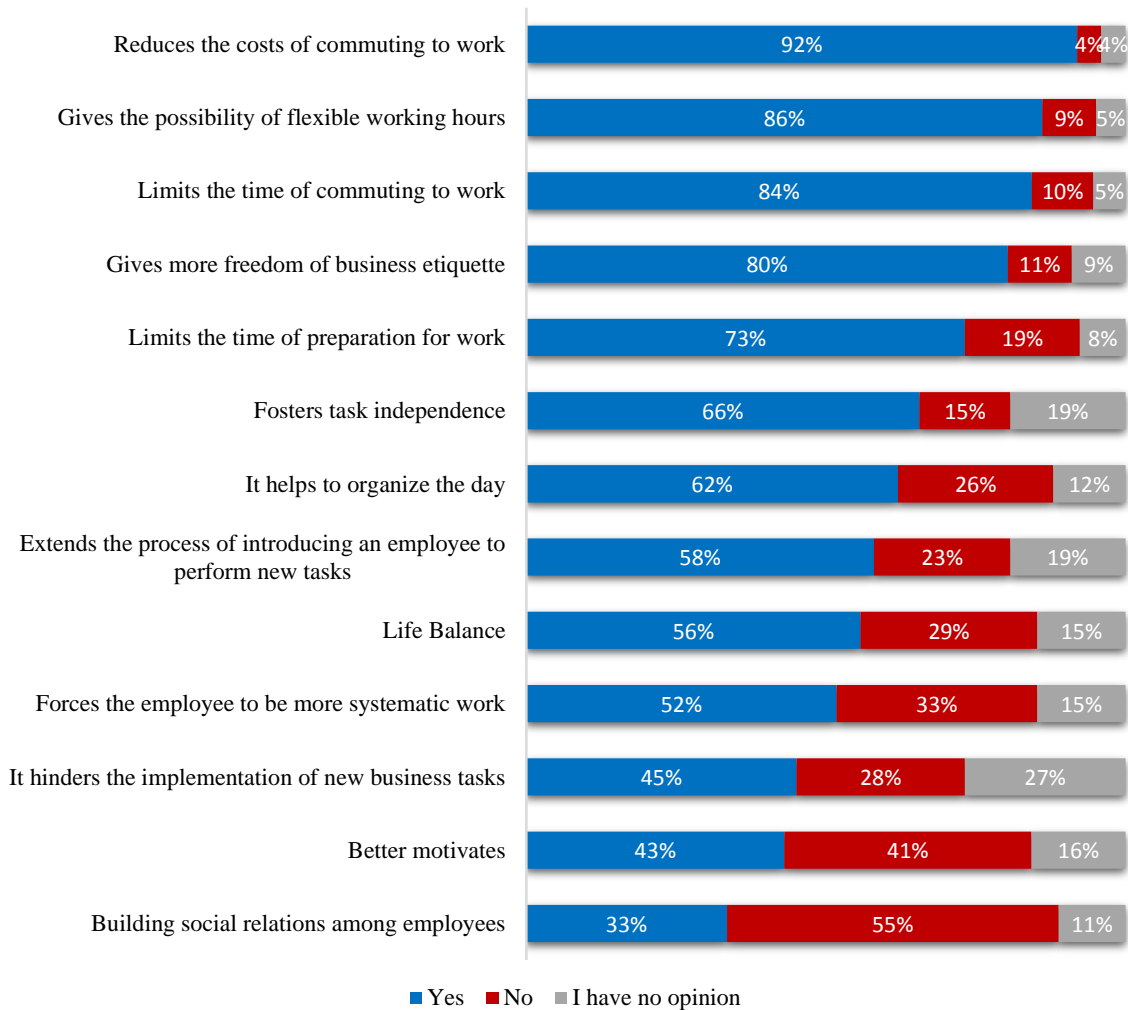
Figure 6. Presentation of the results for the question: *Do you agree with the following statements related to the work performed remotely or hybrid?*

Source: own study based on the conducted research.

The organization of work in a hybrid or remote form is not only an opportunity for employees to save time and costs of commuting, or easier organization of the working day, but above all it is a new opportunity to expand the scope of the labor market. Thus, for employers, it is easier to recruit employees for a given job position. The possibility of taking up a job in another place (city) without the need to move was declared by as many as 61.9% of the respondents. On the other hand, every fifth respondent (19.9%) would not be interested in working outside their place of residence. Similar research results were obtained in the case of questions about the possibility of taking up work outside the country of residence, thus significantly increasing the distance between the place of residence and the employer's seat. In this case, 63.3% of the respondents would be interested in working in another country, and 22.1% are against this possibility (see table 7).

Table 7.
Hybrid or remote work and employee mobility in the opinion of the respondents

Research questions	Definitely yes	Rather yes	I have no opinion	Rather not	Definitely no
*Would the possibility of working remotely affect taking up work in a place other than the current place of residence **within the same country** (without the need to move)?*	26.5%	35.4%	18.1%	12.4%	7.5%
*Would the possibility to work remotely affect taking up a job **in a country other than your current place of residence** (without the need to move)?*	29.6%	33.6%	14.6%	13.7%	8.4%

Source: own study based on the conducted research.

The decision to work outside the place of residence or even outside the country of residence are not associated with the assessment of the respondents' ability to use modern technologies. In this study, the Pearson correlation coefficient was 0.0416859, which indicates that there is no correlation between these variables.

4. Research implications

This study has provided several practical implications that organizations' practitioners and managers could apply. Generation Z - today's students who will enter the labor market in the next few years are characterized by excellent knowledge of using modern technologies and have digital competences, and the use of mobile devices has become an element of their everyday life. A characteristic feature of this generation is its mobility, which also translates into preferences regarding the future work model. The experience gained during remote learning can be used by future employers to effectively implement the hybrid work model, in which the temporary possibility of remote work is the preferred form of work for the Z generation. Undoubtedly, the issue that requires further research is the effectiveness of management and motivating employees who perform part of their work. tasks in the form of remote work. The widespread use of hybrid work will have implications for both employers and employees. Adopting this form of work organization will allow for the expansion of the labor market area for both groups of entities.

The results of the research clearly showed that employees are open to looking for work outside their place of residence, even outside the country. For employees, this means a much wider area of potential employers, and for employers it means access to a larger group of specialists. In addition, the implementation of remote or hybrid work involves the need to provide greater security of access and data flow between enterprises, organizations and their employees, who can perform their official duties outside the workplace. Building secure, open networks will be a key aspect for IT departments. In a study commissioned by the Polish

Agency for Enterprise Development PARP, which was carried out in March 2020, for 64% of the surveyed companies, the key aspect of their operation is to ensure technical conditions for remote service of performed tasks and to identify technologies and solutions with the greatest potential for the future (PARP, 2021). Already today, cybersecurity is a key area of computerization. An interesting research area is the impact of the organization of remote or hybrid work on environmental protection. Reducing CO_2 emissions by reducing the need to travel to work can be important for future spatial planning and, inter alia, urbanization processes.

5. Conclusions

For people open to change, the possibility of hybrid or remote work gives the opportunity to work in a much wider span of locations, which will make it easier for these people to navigate the labor market. In this respect, the place of residence and the place of work no longer have to overlap. Instead, the attractiveness of cost of living will be independent of salaries. People will be able to live where it is affordable to do so, and append to their living quarters a workspace that will allow them to achieve productivity on levels equitable to when traditional work was taking place.

The research conducted is in line with the scientific considerations concerning the study of models of organization and effectiveness of remote work that was popularized during the Covid-19 pandemic. The research conducted here is based on cross-sectional data, which should be extended and repeated, and the subjective scope of the research should be extended, which will allow us to verify the correlation of factors such as the nature and type of studies to assess the future model of work organization.

The study was conducted on a group of 470 students from different countries. The obtained qualitative data limited the selection of statistical tools to evaluate the phenomena and relations taking place. Therefore, it is worth considering changing the scale of possible responses in order to obtain numerical values and to support the verification of research hypotheses with quantitative statistics. It is important to note that the subject pool in which our respondents are found will earn and contribute value in places where wages are high and no workspace will be required for them. According to the authors, this is an interesting research area that should be further explored in the future that can overcome the problem of limited statistical techniques. Will the use of modern technology have a positive impact on the broadly understood sustainable development, both in terms of urbanization, social development or life balance?

The authors imply some answers to these questions, namely the realignment of city centers as spaces for work and population generally will decline sharply. Further, work life balance will transform to an amalgamation of the two, where we work from home and live where we work. However, it remains unclear whether or not this will positively impact society or individual mental health.

References

1. *2022 State Of Remote Work* (2022). https://buffer.com/state-of-remote-work/2022, 11.02.2023.
2. Ali, W. (2020). Online and Remote Learning in Higher Education Institutes: A Necessity in light of COVID-19 Pandemic. *Higher Education Studies*, *10*(3), p. 16, https://doi.org/10.5539/hes.v10n3.
3. Amis, J., Greenwood, R. (2020). Organisational change in a (post-) pandemic world: Rediscovering interests and values. *Journal of Management Studies*, *58*(2).
4. Amis, J.M., Greenwood, R. (2021). Organisational Change in a (Post-) Pandemic World: Rediscovering Interests and Values. *Journal of Management Studies*, *58*(2), pp. 582-586. https://doi.org/10.1111/joms.12663.
5. Asadzadeh, A., Pakkhoo, S., Saeidabad, M.M., Khezri, H., Ferdousi, R. (2020). Information technology in emergency management of COVID-19 outbreak. *Informatics in Medicine Unlocked*, *21*, 100475. https://doi.org/10.1016/j.imu.2020.100475.
6. Bailey, K., Breslin, D. (2021). The COVID- 19 Pandemic: What can we learn from past research in organizations and management? *International Journal of Management Reviews*, *23*(1), pp. 3-6. https://doi.org/10.1111/ijmr.12237.
7. Baker, E., Avery, G.C.; Crawford, J. (2007). Satisfaction and perceived productivity when professionals work from home. *Research and Practice in Human Resource Management*, *15*(1), pp. 37-62.
8. Baum, T. (2020). A changing world of work. What can we learn from the service sector about employing Millennials (and Gen Z)? *Organizational Dynamics*, *49*(3), 100715. https://doi.org/10.1016/j.orgdyn.2019.04.001.
9. Bejinariu, A.C., Jitarel, A., Sarca, I., Mocan, A. (2017). Organizational change management–concepts definitions and approaches inventory. In: *Management Challenges in a Network Economy* (pp. 321-330). https://econpapers.repec.org/RePEc:tkp:mklp17.
10. Bennett, S., Maton, K., Kervin, L. (2008). The 'digital natives' debate: A critical review of the evidence. *British Journal of Educational Technology*, *39*(5), pp. 775-786. https://doi.org/10.1111/j.1467-8535.2007.00793.x.
11. Bhayana, C., Gupta, V., Sharda, K. (2021). The Role of Shared Leadership in Managing

Conflicts in Multigenerational Teams: A Research Framework. *Business Perspectives and Research*, *9*(2), pp. 252-268. https://doi.org/10.1177/2278533720964928.

12. Bick, A., Blandin, A., Mertens, K. (2020). Work from Home After the COVID-19 Outbreak. *Federal Reserve Bank of Dallas, Working Papers*. https://doi.org/10.24149/wp2017r1.

13. Bonacini, L., Gallo, G., Scicchitano, S. (2021). Working from home and income inequality: risks of a 'new normal' with COVID-19. *Journal of Population Economics*, *34*(1), pp. 303-360. https://doi.org/10.1007/s00148-020-00800-7.

14. Burton, C.M., Mayhall, C., Cross, J., Patterson, P. (2019). Critical elements for multigenerational teams: a systematic review. *Team Performance Management: An International Journal*, *25*(7/8), pp. 369-401. https://doi.org/10.1108/TPM-12-2018-0075.

15. Carnevale, J.B., Hatak, I. (2020). Employee adjustment and well-being in the era of COVID-19: Implications for human resource management. *Journal of Business Research*, *116*, pp. 183-187. https://doi.org/10.1016/j.jbusres.2020.05.037.

16. Carter Jr R.A., Rice, M., Yang, S., Jackson, H.A. (2020). Self-regulated learning in online learning environments: strategies for remote learning. *Information and Learning Sciences*, *121*(5/6), pp. 321-329. https://doi.org/10.1108/ILS-04-2020-0114.

17. Chatterjee, S., Chaudhuri, R., Vrontis, D. (2022). Does remote work flexibility enhance organization performance? Moderating role of organization policy and top management support. *Journal of Business Research*, *139*, pp. 1501-1512. https://doi.org/10.1016/j.jbusres.2021.10.069.

18. Chen, J.K.C., Sriphon, T. (2021). Perspective on COVID-19 Pandemic Factors Impacting Organizational Leadership. *Sustainability*, *13*(6), pp. 32-30. https://doi.org/10.3390/su13063230.

19. Chillakuri, B., Mahanandia, R. (2018). Generation Z entering the workforce: the need for sustainable strategies in maximizing their talent. *Human Resource Management International Digest*, *26*(4), pp. 34-38. https://doi.org/10.1108/HRMID-01-2018-0006.

20. Choi, M. (2011). Employees' attitudes toward organizational change: A literature review. *Human Resource Management*, *50*(4), pp. 479-500. https://doi.org/10.1002/hrm.20434.

21. Christensen, S.S., Wilson, B.L., Edelman, L.S. (2018). Can I relate? A review and guide for nurse managers in leading generations. *Journal of Nursing Management*, *26*(6), pp. 689-695. https://doi.org/10.1111/jonm.12601.

22. Heitz, C., Laboissiere, M., Saurabh Sanghvi, J.S. (n.d.). *Getting the next phase of remote learning right in higher education*. Retrieved from: https://www.mckinsey.com/hu/~/media/McKinsey/Industries/Public and Social Sector/Our Insights/Getting the next phase of remote learning right in higher education/Getting-the-next-phase-of-remote-learning-right-in-higher-education.pdf, 15.04.2023.

23. Ardueser, C., Garza, D. (2021). *Exploring Cross-Generational Traits and Management*

Across Generations in the Workforce: A Theoretical Literature Review. Research Association for Interdisciplinary Studies.

24. De', R., Pandey, N., Pal, A. (2020). Impact of digital surge during Covid-19 pandemic: A viewpoint on research and practice. *International Journal of Information Management*, *55*, 102171. https://doi.org/10.1016/j.ijinfomgt.2020.102171.

25. DelCampo, R.G., Haggerty, L.A., Knippel, L.A. (2017). *Managing the Multi-Generational Workforce*. Routledge. https://doi.org/10.4324/9781315249841.

26. Dimock, M. (2019). *Defining generations: Where Millennials end and Generation Z begins*. https://www.pewresearch.org/fact-tank/2019/01/17/where-millennials-end-and-generation-z-begins/, 22.05.2023.

27. Dixon, M. (2019). *The Iwg Global Workspace Survey Welcome to Generation Flex – the employee power shift*. International Workplace Group.

28. Fabiani, C., Longo, S., Pisello, A.L., Cellura, M. (2021). Sustainable production and consumption in remote working conditions due to COVID-19 lockdown in Italy: An environmental and user acceptance investigation. *Sustainable Production and Consumption*, *28*, pp. 1757-1771. https://doi.org/10.1016/j.spc.2021.09.013.

29. Garbe, A., Ogurlu, U., Logan, N., Cook, P. (2020). Parents' Experiences with Remote Education during COVID-19 School Closures. *American Journal of Qualitative Research*, *4*(3). https://doi.org/10.29333/ajqr/8471.

30. Gardner, H.K., Matviak, I. (2020). Coronavirus Could Force Teams to Work Remotely. *Harvard Business Review*.

31. Gayatri, M. (2020). The Implementation Of Early Childhood Education In The Time Of Covid-19 Pandemic: A Systematic Review. *Humanities & Social Sciences Reviews*, *8*(6), pp. 46-54. https://doi.org/10.18510/hssr.2020.866.

32. George, G., Lakhani, K.R., Puranam, P. (2020). What has changed? The Impact of Covid Pandemic on the Technology and Innovation Management Research Agenda. *Journal of Management Studies*, *57*(8), pp. 1754-1758. https://doi.org/10.1111/joms.12634.

33. Hallencreutz, J., Turner, D. (2011). Exploring organizational change best practice: are there any clear- cut models and definitions? *International Journal of Quality and Service Sciences*, *3*(1), pp. 60-68. https://doi.org/10.1108/17566691111115081.

34. Hardey, M. (2011). Generation C: Content, Creation, Connections and Choice. *International Journal of Market Research*, *53*(6), pp. 749-770. https://doi.org/10.2501/IJMR-53-6-749-770.

35. He, W., Zhang, Z.J., Li, W. (2021). Information technology solutions, challenges, and suggestions for tackling the COVID-19 pandemic. *International Journal of Information Management*, *57*, 102287. https://doi.org/10.1016/j.ijinfomgt.2020.102287.

36. Hobbs, D.T., Hawkins, L. (2020). *The Results Are In for Remote Learning: It Didn't Work*. Retrieved from: https://www.wsj.com/articles/schools-coronavirus-remote-learning-lockdown-tech-11591375078?mod=flipboard, 27.04.2023.

37. Hodgson, C.W.R. (2020). An ETF called WFH offers new way to ride remote working trend. *Financial Times*.

38. Jämsen, R., Sivunen, A., Blomqvist, K. (2022). Employees' perceptions of relational communication in full-time remote work in the public sector. *Computers in Human Behavior*, *132*, 107240. https://doi.org/10.1016/j.chb.2022.107240.

39. Junnaid, M.H., Miralam, M.S., Vikram, J. (2020). Leadership and organizational change management in unpredictable situations in responding to COVID-19 pandemic. *International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies*, *11*(16). https://doi.org/10.14456/ITJEMAST.2020.322.

40. Kagermann, H. (2015). Change Through Digitization—Value Creation in the Age of Industry 4.0. *Management of Permanent Change*. Wiesbaden: Springer Fachmedien, pp. 23-45. https://doi.org/10.1007/978-3-658-05014-6_2.

41. Kalhor, K., Emaminejad, N. (2019). Sustainable development in cities: Studying the relationship between groundwater level and urbanization using remote sensing data. *Groundwater for Sustainable Development*, *9*, 100243. https://doi.org/10.1016/j.gsd.2019.100243.

42. Kiers, J., Seinhorst, J., Zwanenburg, M., Stek, K. (2022). Which Strategies and Corresponding Competences Are Needed to Improve Supply Chain Resilience: A COVID-19 Based Review. *Logistics*, *6*(1), p. 12. https://doi.org/10.3390/logistics6010012.

43. Lapoint, P.A., Liprie-Spence, A. (2017). Employee Engagement: Generational Differences in the Workforce. *Journal of Organizational Psychology*, *17*(5), pp. 118-128.

44. Lyons, S., Kuron, L. (2014). Generational differences in the workplace: A review of the evidence and directions for future research. *Journal of Organizational Behavior*, *35*(S1), pp. 139-157. https://doi.org/10.1002/job.1913.

45. Maioli, D.E. (2016). New Generations and Employment − An Exploratory Study about Tensions Between the Psycho-social Characteristics of the Generation Z and Expectations and Actions of Organizational Structures Related with Employment (CABA, 2016). *Journal of Business*, *2*(1), 01. https://doi.org/10.18533/job.v2i1.53.

46. Mansi, B. (2013). *Positive and Negative Impacts of Information and Communication Technology in our Everyday Life*. Retrieved from: https://www.researchgate.net/publication/325570282_Positive_and_Negative_Impacts_of_Information_and_Communication_Technology_in_our_Everyday_Life, 15.05.2023.

47. Mariani, M.M., Fosso Wamba, S. (2020). Exploring how consumer goods companies innovate in the digital age: The role of big data analytics companies. *Journal of Business Research*, *121*, 338-352. https://doi.org/10.1016/j.jbusres.2020.09.012.

48. Martins, F. dos S., Góes, G.S., Nascimento, J.A.S. (2021). Potential and effective remote work in Brazil: Looking into the gap between metrics. *EconomiA*, *22*(3), pp. 265-277. https://doi.org/10.1016/j.econ.2021.11.006.

49. Men, L.R., Robinson, K.L. (2018). It's about how employees feel! examining the impact of emotional culture on employee–organization relationships. *Corporate Communications: An International Journal*, *23*(4), pp. 470-491. https://doi.org/10.1108/CCIJ-05-2018-0065.

50. Fasciani, M., Eagle, T., Doherty, B.C.T. (2021). *Magic Quadrant for Meeting Solutions*. Retrieved from: https://www.gartner.com/doc/reprints?id=1-28HZQ1BF&ct=211223&st= sb&utm_campaign=2021GartnerMagicQuadrant&utm_medium=email&_hsmi=16762511 7&_hsenc=p2ANqtz-_7L6L6-XArYMmzeKrCEtl1o1G7UoKzkuUFIyNC546HUjAqi8U FxhoubKsR5-nA8VWmpHjjQ_vp12AgDrRw372AjLQMMTCgU43Wa, 12.05.2023.

51. *More Remote Work Opportunities May Make Suburbs More Desirable* (2020). Retrieved from: https://www.zillow.com/research/coronavirus-remote-work-suburbs-27046, 17.06.2023.

52. Morgan, H. (2020). Best Practices for Implementing Remote Learning during a Pandemic. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, *93*(3), pp. 135-141. https://doi.org/10.1080/00098655.2020.1751480.

53. Mosteanu, N.R. (2020). Digital university campus – change the education system approach to meet the 21st century needs. *European Journal of Human Resource Management Studies*, *4*(4). https://doi.org/10.46827/ejhrms.v4i4.959.

54. Mueller-Langer, F., Gómez-Herrera, E. (2022). Mobility restrictions and the substitution between on-site and remote work: Empirical evidence from a European online labour market. *Information Economics and Policy*, *58*, 100951. https://doi.org/10.1016/ j.infoecopol.2021.100951.

55. OECD (2022). *ICT Access and Usage by Businesses*. Retrieved from: https://stats.oecd.org/Index.aspx?DataSetCode=ICT_HH2#], 9.05.2023.

56. Ofosu-Ampong, K., Acheampong, B. (2022). Adoption of contactless technologies for remote work in Ghana post-Covid-19: Insights from technology-organisation-environment framework. *Digital Business*, *2*(2), 100023. https://doi.org/10.1016/j.digbus.2022.100023.

57. Owl Labs & Global Workplace Analytics (2021). *State of Remote Work 2021*. Retrieved from: https://resources.owllabs.com/hubfs/SORW/SORW_2021/owl-labs_state-of-remote-work-2021_report-final.pdf?utm_campaign=StateofRemoteWork2021&utm_medium= email&_hsmi=180908804&_hsenc=p2ANqtz-_QqLl-7bQetJbJYOdCoskUzSr2pErr PvrTL353dUDu9e3aetTHyMlktMDf-N_opd0, 19.06.2023.

58. Peters, P., den Dulk, L., de Ruijter, J. (2010). May I work from home? Views of the employment relationship reflected in line managers' telework attitudes in six financial-sector organizations. *Equality, Diversity and Inclusion: An International Journal*, *29*(5), pp. 517-531. https://doi.org/10.1108/02610151011052799.

59. Ribeiro, L.M., Cunha, R.S., Silva, M.C.A.E, Carvalho, M., Vital, M.L. (2021). Parental Involvement during Pandemic Times: Challenges and Opportunities. *Education Sciences*, *11*(6), p. 302. https://doi.org/10.3390/educsci11060302.

60. Roemer, A., Sutton, A., Medvedev, O.N. (2021). The role of dispositional mindfulness in

employee readiness for change during the COVID-19 pandemic. *Journal of Organizational Change Management*, *34*(5), pp. 917-928. https://doi.org/10.1108/JOCM-10-2020-0323.

61. Roos, L.E., Salisbury, M., Penner-Goeke, L., Cameron, E.E., Protudjer, J.L.P., Giuliano, R., Afifi, T.O., Reynolds, K. (2021). Supporting families to protect child health: Parenting quality and household needs during the COVID-19 pandemic. *PLOS ONE*, *16*(5), e0251720. https://doi.org/10.1371/journal.pone.0251720.

62. Ruck, K., Men, L.R. (2021). Guest editorial: Internal communication during the COVID-19 pandemic. *Journal of Communication Management*, *25*(3), pp. 185-195. https://doi.org/10.1108/JCOM-08-2021-163.

63. Ruth, S., Chaudhry, I. (2008). Telework: A Productivity Paradox? *IEEE Internet Computing*, *12*(6), 87-90. https://doi.org/10.1109/MIC.2008.132.

64. Sakdiyakorn, M., Golubovskaya, M., Solnet, D. (2021). Understanding Generation Z through collective consciousness: Impacts for hospitality work and employment. *International Journal of Hospitality Management*, *94*, 102822. https://doi.org/10.1016/j.ijhm.2020.102822.

65. Saura, J.R., Ribeiro-Soriano, D., Zegarra Saldaña, P. (2022). Exploring the challenges of remote work on Twitter users' sentiments: From digital technology development to a post-pandemic era. *Journal of Business Research*, *142*, pp. 242-254. https://doi.org/10.1016/j.jbusres.2021.12.052.

66. Shatto, B., Erwin, K. (2016). Moving on From Millennials: Preparing for Generation Z. *The Journal of Continuing Education in Nursing*, *47*(6), pp. 253-254. https://doi.org/10.3928/00220124-20160518-05.

67. Shin, B., Higa, K., Sheng, O.R.L., Ide, T. (1999). Analyzing the media usage behavior of telework groups: a contingency approach. *IEEE Transactions on Systems, Man and Cybernetics, Part C (Applications and Reviews)*, *29*(1), pp. 127-139. https://doi.org/10.1109/5326.740675.

68. Singh, M.K. (2020). *Impact of Covid-19 Pandemic on Working Culture: An Exploratory Research Among Information Technology (IT) Professionals in Bengaluru, Karnataka (India)*. https://doi.org/10.37896/JXAT12.05/1734.

69. Singh, A.P., Dangmei, J. (2016). Understanding The Generation Z: The Future Workforce. *South-Asian Journal of Multidisciplinary Studies*, *3*(3), pp. 1-5.

70. Smith, J., Garriety, S. (2020). The art of flexibility: bridging five generations in the workforce. *Strategic HR Review*, *19*(3), pp. 107-110. https://doi.org/10.1108/SHR-01-2020-0005.

71. Soroui, S.T. (2021). Understanding the drivers and implications of remote work from the local perspective: An exploratory study into the dis/reembedding dynamics. *Technology in Society*, *64*, 101328. https://doi.org/10.1016/j.techsoc.2020.101328.

72. Srinivasan, V. (2012). Multi generations in the workforce: Building collaboration. *IIMB Management Review*, *24*(1), pp. 48-66. https://doi.org/10.1016/j.iimb.2012.01.004.

73. *State Of Remote Work 2018* (2018). Retrieved from: https://buffer.com/state-of-remote-work/2018, 24.05.2023.

74. *State Of Remote Work 2020* (2020). Retrieved from: https://buffer.com/state-of-remote-work/2020, 24.05.2023.

75. Sufyanullah, K., Ahmad, K.A., Sufyan Ali, M.A. (2022). Does emission of carbon dioxide is impacted by urbanization? An empirical study of urbanization, energy consumption, economic growth and carbon emissions - Using ARDL bound testing approach. *Energy Policy*, *164*, 112908. https://doi.org/10.1016/j.enpol.2022.112908.

76. Szymanowski, W.M. (2016). Conditions of the Single Market of Digital Services in the European Union. *Annales Universitatis Mariae Curie-Skłodowska, Sectio H, Oeconomia*, *50*(2), 125. https://doi.org/10.17951/h.2016.50.2.125.

77. Tramontano, C., Grant, C., Clarke, C. (2021). Development and validation of the e-Work Self-Efficacy Scale to assess digital competencies in remote working. *Computers in Human Behavior Reports*, *4*, 100129. https://doi.org/10.1016/j.chbr.2021.100129.

78. Urick, M.J., Hollensbe, E.C., Fairhurst, G.T. (2017). Differences in Understanding Generation in the Workforce. *Journal of Intergenerational Relationships*, *15*(3), pp. 221-240. https://doi.org/10.1080/15350770.2017.1329583.

79. Lewis, L.F., Wescott, H.D. (2017). Multi-Generational Workforce: Four Generations United in Lean. *Journal of Business Studies Quarterly*, *8*(3), pp. 1-14.

80. Wise, J. (n.d.). *Gen Z statistics 2022: How many people are in Gen Z?* Retrieved from: https://earthweb.com/gen-z-statistics/, 24.05.2023.

Appendix

Tau Kendall correlation coefficients**

		Q20	Q2_1	Q2_2	Q2_3	Q2_4	Q2_5	Q2_6	Q3_1	Q3_2	Q3_3	Q3_4	Q3_5	Q3_6	Q3_7	Q3_8	Q3_9	Q3_10	Q3_11	Q3_12	Q3_13
Q20	correlation coefficient	--																			
	Significance (two-sided)	.																			
	N	208																			
Q2_1	correlation coefficient	,157*	--																		
	Significance (two-sided)	0,019	.																		
	N	208	221																		
Q2_2	correlation coefficient	-0,06	0,074	--																	
	Significance (two-sided)	0,376	0,232	.																	
	N	208	221	221																	
Q2_3	correlation coefficient	0,095	0,047	-,180**	--																
	Significance (two-sided)	0,123	0,437	0,002	.																
	N	208	221	221	221																
Q2_4	correlation coefficient	,179**	0,023	,179**	,202**	--															
	Significance (two-sided)	0,005	0,709	0,002	<,001	.															
	N	208	221	221	221	221															
Q2_5	correlation coefficient	0,013	0,081	0,07	0,026	0,082	--														
	Significance (two-sided)	0,832	0,18	0,22	0,638	0,155	.														
	N	208	221	221	221	221	221														
Q2_6	correlation coefficient	-0,02	-0,03	,120*	,190**	,151*	,241**	--													
	Significance (two-sided)	0,769	0,668	0,049	0,002	0,015	<,001	.													
	N	208	221	221	221	221	221	221													
Q3_1	correlation coefficient	0,059	,263**	-0,01	0,095	0,031	0,048	-0,1	--												
	Significance (two-sided)	0,366	<,001	0,873	0,11	0,609	0,422	0,105	.												
	N	208	221	221	221	221	221	221	221												
Q3_2	correlation coefficient	0,079	,429**	0,103	0,003	0,037	,160**	-0,1	,366**	--											
	Significance (two-sided)	0,224	<,001	0,085	0,956	0,541	0,006	0,127	<,001	.											
	N	208	221	221	221	221	221	221	221	221											
Q3_3	correlation coefficient	0,054	-0,01	,142*	0,082	,208**	0,037	0,086	0,082	0,035	--										
	Significance (two-sided)	0,4	0,882	0,018	0,164	<,001	0,528	0,171	0,186	0,572	.										
	N	208	221	221	221	221	221	221	221	221	221										
Q3_4	correlation coefficient	,207**	,200**	0,061	,147*	,253**	0,064	0,122	,201**	,203**	,186**	--									
	Significance (two-sided)	0,002	0,002	0,314	0,014	<,001	0,281	0,055	0,002	0,001	0,003	.									
	N	208	221	221	221	221	221	221	221	221	221	221									
Q3_5	correlation coefficient	,127*	,278**	0,044	0,093	,144*	,113*	0,018	,195**	,260**	0,104	,320**	--								
	Significance (two-sided)	0,043	<,001	0,447	0,105	0,015	0,047	0,765	0,001	<,001	0,081	<,001	.								
	N	208	221	221	221	221	221	221	221	221	221	221	221								
Q3_6	correlation coefficient	0,081	0,035	-0,08	,256**	0,044	0,009	0,019	,187**	0,037	-0,06	0,087	,163**	--							
	Significance (two-sided)	0,199	0,575	0,151	<,001	0,459	0,874	0,76	0,002	0,539	0,349	0,152	0,005	.							
	N	208	221	221	221	221	221	221	221	221	221	221	221	221							
Q3_7	correlation coefficient	0,079	0,049	0,082	0,067	,343**	-0	0,067	-0,01	-0,02	0,113	,211**	,171**	0,116	--						
	Significance (two-sided)	0,224	0,443	0,175	0,256	<,001	0,978	0,286	0,89	0,761	0,066	<,001	0,004	0,054	.						
	N	208	221	221	221	221	221	221	221	221	221	221	221	221	221						
Q3_8	correlation coefficient	0,06	,154*	0,045	-0,03	,117*	-,153**	0,007	,160**	,171**	0,085	0,086	,169**	,151**	,212**	--					
	Significance (two-sided)	0,341	0,013	0,437	0,661	0,048	0,007	0,909	0,008	0,004	0,153	0,156	0,004	0,01	<,001	.					
	N	208	221	221	221	221	221	221	221	221	221	221	221	221	221	221					
Q3_9	correlation coefficient	0,031	0,047	0,055	,142*	0,095	,159**	,170**	-0,02	0,1	,141*	,200**	0,086	0,029	0,11	0,02	--				
	Significance (two-sided)	0,622	0,456	0,354	0,014	0,11	0,006	0,006	0,738	0,098	0,019	0,001	0,143	0,627	0,07	0,69	.				
	N	208	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221				
Q3_10	correlation coefficient	0,117	0,071	0,08	,199**	,122*	0	-0,02	,166**	0,096	,178**	,201**	0,107	-0,03	,231**	0,07	,381**	--			
	Significance (two-sided)	0,063	0,252	0,173	<,001	0,039	0,996	0,805	0,006	0,109	0,003	<,001	0,067	0,652	<,001	0,22	<,001	.			
	N	208	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221			
Q3_11	correlation coefficient	0,094	0,117	0,018	-0,02	,215**	0,024	0,018	0,026	0,036	,124*	,130*	0,109	0,091	,251**	,205**	,183**	,183**	--		
	Significance (two-sided)	0,141	0,062	0,764	0,714	<,001	0,678	0,776	0,67	0,558	0,041	0,035	0,065	0,124	<,001	<,001	0,002	0,002	.		
	N	208	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221		

		Q20	Q2_1	Q2_2	Q2_3	Q2_4	Q2_5	Q2_6	Q3_1	Q3_2	Q3_3	Q3_4	Q3_5	Q3_6	Q3_7	Q3_8	Q3_9	Q3_10	Q3_11	Q3_12	Q3_13
Q3_12	correlation coefficient	0,099	,162**	0,088	0,075	,250**	0,04	0,061	0,059	,121*	0,087	,212**	,167**	-0,02	,236**	,205**	,147*	,183**	,294**	--	
	Significance (two-sided)	0,112	0,009	0,13	0,191	<,001	0,485	0,317	0,33	0,043	0,144	<,001	0,004	0,77	<,001	<,001	0,012	0,002	<,001	.	
	N	208	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221	
Q3_13	correlation coefficient	0,004	-0,01	0,03	0,014	0,115	0,116	,135*	0,077	-0	0,068	,156*	,160**	0,055	,172**	,201**	,189**	0,095	,197**	,170**	--
	Significance (two-sided)	0,956	0,914	0,619	0,811	0,061	0,051	0,034	0,22	0,969	0,272	0,014	0,009	0,369	0,01	<,001	0,002	0,118	0,001	0,005	.
	N	208	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221

Source: Own study based on the conducted research.