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REMOTE WORK IN LOCAL GOVERNMENT UNITS OF THE MAZOWIECKIE VOIVODESHIP: EXPERIENCES FROM THE FIRST WAVE OF THE COVID-19 PANDEMIC

This article describes the results of studies on remote work introduced due to the COVID-19 pandemic in public administration institutions in local government offices. We have synthesized the available literature on remote work, with a focus on identifying factors enabling remote work, and the benefits and risks of implementing such a system. The empirical section diagnoses the transition in public administration to a remote working model and identifies the impediments associated with this process. We have also attempted to formulate specific recommendations to improve the operations of Polish local government offices. Therefore, local authorities can adopt the results of this study to develop operational programs aiming to digitize administrative institutions.

Keywords: remote work, local government, COVID-19, remote employee, digitalization.

1. INTRODUCTION

The COVID-19 global pandemic has changed the way many companies work, especially in technology industry. On Wednesday, March 18th, 2020, Microsoft announced that all employees at its headquarters in Puget Sound, Washington, USA, were expected to work from their homes and not return to the office until further notice (Butler, 2020). A week later, Microsoft employees received the logs as part 'work from home' research. They were asked to report the difficulties they encountered in their work organized on a completely different basis than usual. They were also asked to determine whether they perceived these challenges as insurmountable or rewarding experiences[3]. The global pandemic has become a turning point in thinking about remote work.

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[3] 435 employees kept a log. In the past, this form of research has been used to analyze programmers' working habits and methods of goal setting (Meyer, Murphy, Zimmermann, Fritz, 2019; Czerwinski, Horvitz, Wilhite, 2004; Lazar, Feng, Hochheiser, 2017).

Telework is currently praised as an alternative style of work responds to various social and business constraints of the classical approach. Initially, this solution did not gain the trust of a majority of the companies. However, in the late 1980s and early 1990s, some organizations began to implement this method to plan their knowledge workers' job performance flexibly (KDV Prasada, Rajesh, Vaidyab, Mruthyanjaya Rao Mangipudic, 2020). Telework was also intended to respond to overloaded communication, tiring business trips, maintaining business continuity in the event of outsourcing or offshoring, or the need to reduce office space, i.e., the issues resulting from the reduction of the company's operating costs. In recent years, several factors, such as the growing concern for global warming, the need to reduce greenhouse gas emissions, and the soaring prices of fuel and energy, spoke in favor of implementing remote working. The commute trip reduction resulting from such solutions is also considered responsible development (Greenberg, Nilssen, 2008). Currently, a pandemic outbreak has become a main factor in mobilizing and accelerating the implementation of remote work solutions.

However, in many cases of these early attempts at teleworking, the companies avoided the implementation of formalized programs for a various reason. For some, the main obstacle was the organizational culture; the option of giving up management and control over employees was unacceptable. For others, the idea of introducing new work-related solutions was seen merely as a potential social experiment to win over workers. Most importantly, it was the lack of technologies necessary for efficient work in remote locations – technologies which would enable the creation of viable, collaborative teams.

For a long time, telecommuting has been perceived as something exotic, from the perspective of both work organization and human management. Research is being carried out in many scientific centers to identify fundamental changes in the approach to teleworking and the development of technologies supporting it (Driver, 2017). It is a fact that teleworking is now attracting increasing interest for both large and small businesses. The convergence of several technological, environmental, and economic factors, the growing needs of companies and employees, and the availability of appropriate technologies – all this creates almost ideal conditions for the dynamic development of teleworking. The changes of working environment – together with an evolving social approach to work-life balance – cause a shift in how organizations treat their employees. The rapid changes made during the COVID-19 pandemic prove the existence of such a phenomenon (Arntz, Ben-Yahmend, Berlingieri, 2020).

Remote work offers solutions to many issues affecting large and small businesses. It has gone from the initial phase of the 'new wave,' characterized by vague, minor benefits expressed through statements like 'I work from home, and I can dress comfortably,' and transformed into a better-understood concept with clearly visible personal benefits such as: 'I can do more and save money because I do not have to travel' or 'I can pick up my children from school and make up for that time y working later and connecting with colleagues on another continent.' (Greenberg, Nilssen. 2008). There are only several organizations still questioning the value of remote work. The workspace culture has changed enough to accept that people can responsibly perform the assigned tasks and understand that telework is compatible with the shifting needs of dispersed organizations. Undoubtedly, this is also because the concepts of working from 8 a.m. to 4 p.m. (or from 9 a.m. to 7 p.m.) and being employed by only one company throughout an entire career are getting less popular.

Teleworking is entering a phase and is becoming widespread solution adopted by both large and smaller organizations. This is also possible due to the number of new and

improved technologies, commonly referred to as unified communications (UC) with mobile applications playing the most important role

The purpose of the article is to identify the opportunities and threats resulting from the implementation of remote work as a specific way of organizing work. The empirical research presented in the article made it possible to implement a specific objective, namely – to formulate recommendations for Polish local government offices on how to effectively switch to the remote work mode.

2. DEFINITIONS OF REMOTE WORK

Telework (work performed at home or in a satellite office) is a technology-based mode of operation that can be defined as a method of performing work remotely using information and communication technologies (ICT) in deliver the results (Peters, Ligthart, Bardoel, Poutsma, 2016). It is mainly characterized by:

- the use of various job locations (the central offices, homes, or the third places such as satellite offices),
- taking advantage of all types of ICT employment offered in many different forms including contract and B2B model organization of the working time (i.e., percentage of working time outside the head office).

There are also various forms of remote work: teleworkers, freelancers, mobile workers, independent online service providers, internet entrepreneurs, employees of virtual organizations (Al-Shathry, 2012). Researchers point out that there is no uniform approach to remote work. It is also referred to as teleworking, telecommuting, e-learning, virtual teams, outsourcing or offshoring, virtual communities, virtual connections, and technology-assisted business. A virtual organization has been defined as an environment in which employees are connected electronically but not physically. Terms *virtual* and *virtualized* work differ from each other depending on the number of people involved, the degree of interaction between them, and the degree of the virtuality of the team (Jonsen, Maznevski, Davison, 2012). Attention is paid to the challenges of virtual management and leadership in virtual teams. Some authors discuss the subject of e-Leadership, defined as the process of social impact on virtual teams, and D-Leadership, which refers to the distance between members of distributed teams and the context of human management in which advanced information and communication technologies are mediating. Other frequently mentioned terms include *distributed leadership*, *mobile management*, or *remote management and leadership*. All of them describe the relationships differentially related to the context in which they occur – proximal vs. remote. The terms *leadership* and *management* of virtual teams are used interchangeably (Kelley, Kelloway, 2012).

Remote work can be used by organizations to attract, motivate, and retain highly skilled and valuable employees. Companies can gain an advantage over competitors from the thoughtfully designed HRM strategies, including teleworking practices. Competitive advantage can be gained by proper management of telework. This finding, too, may introduce a new approach to the business management. The long- and short-term advantages and disadvantages of remote work for all the stakeholders' groups (managers, employees, customers, suppliers, society) play an equally important part in strengthening the company's market position (Peters, Van der Lippe, 2007). Advantages include increased work autonomy, time-space flexibility, work motivation, commitment, flow, job satisfaction,

lowered stress level, and intensity of work-life conflict, and the reduction of commuting (Illegems, Verbeke 2004).

It is also important to consider all possible shortcomings associated with this type of work. Occupational and social isolation, possible loss of commitment, longer working hours, stress and burnout, the need for permanent accessibility, and possible lack of work-life balance should all be taken into account when developing management processes. The literature on that subject suggests that the values important for that process do not significantly differ from those essential for managing a traditional organization, such as trust and relationship building, communication and knowledge sharing, decision-making, leadership, and diversity. Furthermore, it is often implied that remote work requires new skills. The workers must identify and then constantly develop and strengthen the types of skills particularly necessary for the assigned job. Those who intend to work remotely must especially focus on deepening their technological knowledge and developing their competencies in the fields of time management, problem-solving, and decision-making (Kerber, Buono, 2004).

The virtual teams constitute a separate but also very important problem. They are defined as geographically and temporarily dispersed groups of employees, collaborating primarily through the Internet, i.e., using information and communication technologies (Driver, 2017). These technologies include, among others, text-based communication and audio media. The former rests on emails and using servers, which enable sharing knowledge, updates, and documentation. In turn, audio media include phone calls (enabling to have a quick interaction), meetings, chats (asking simple questions and getting instant answers), video conferencing, social networks and platforms, discussion boards, and virtual walls. Increasingly sophisticated, elaborate, and cost-effective grouping software is being produced, and the virtual world environments are now available to more people than ever before. The COVID-19 pandemic mentioned at the beginning of the article has only accelerated these processes. There are already interesting articles on this subject, which examine the pandemic's effects from many different perspectives (Möhring et al., 2020).

3. OPPORTUNITIES AND RISKS ASSOCIATED WITH REMOTE WORK

Undeniably, remote work begins to play a greater role around the world. Research shows a generally positive attitude towards such a way of performing tasks. However, the affective, cognitive, social, professional, and psychosomatic dimensions of well-being at work are still playing an important role in the functioning of the organizations. The benefits of teleworking can have its impact on the organization, its employees, but also society as a whole. The results of the already conducted studies indicate that we know more about the affective state of remote e-workers and their social and professional life than about their cognitive functioning and psychosomatic well-being. The sense of social and professional isolation and perceived risks associated with the chances of getting a promotion while working remotely are the negative effects of teleworking frequently pointed out by researchers (Greenberg, Nilssen, 2008). Some researchers believe that remote work is associated with the feeling of uncertainty and specific sensitivity. Paradoxically, the weakening of mechanisms of direct control over the tasks in teleworking can cause a lack of trust towards virtual employees (Bailey, Kurland, 2002). To prevent this, it is important to undertake special efforts aimed at maintaining the teleworkers' relationship with the employer and social connections between the employees themselves. Inscribing such

activities into the organizational culture determines the level of activity and satisfaction in a workplace and helps establish clear boundaries between one's working time at home and private time (Greenberg, Nilssen, 2008).

Access to teleworking can increase employees' motivation and engagement, since – in some organizations – it is associated with status and prestige. In many cases, only the best-educated, the most qualified employees and managers have the right to telework. Remote work requires self-regulation skills and proactive professional behavior and can particularly motivate development-oriented workers. Teleworking can lead to greater learning opportunities and give an impulse to search for novelties. As the autonomy of work increases, one can also choose from a wider range of methods and better control the pace of the task's execution (Peters, Poutsma, Van der Heijden, Bakker, De Bruijn, 2014).

e-Employees have considerable freedom to set their schedule, the pace of work, and working methods compared to traditional ones, but that is not all. They also have greater autonomy, especially in terms of choosing their goals and coworkers. Those factors can have a positive impact on reducing the level of professional stress, which can positively influence organizations and employees. The development of information and communication technologies helps decrease the level of inconvenience resulting from separation, isolation, the feeling of disintegration, etc. (Kurland, Cooper, 2002; Beham, Drobnič, Präg, Baierl, Eckner, 2019).

Researchers also stress that the differences between the remote work performed individually and in virtual teams should not be forgotten. Remote work is an organizational phenomenon. Still, in empirical analyses, much more attention is paid to personal issues related to teleworkers. There is a danger of people being selected by the organizations to work remotely, independently, or in virtual teams, which may lead to the exclusion or marginalization of some employees. Often, the choice is made ad hoc, only for current needs, and organizations do not create long-term strategies focusing on the improvement of competencies and development of skills necessary to complete the tasks assigned to virtual teams.

Most researchers believe that virtual collaboration is beneficial to organizations and their employees. It provides managers and teams with access to the knowledge and talents in the organization and gives them flexibility which is necessary for all kinds of conceptual or creative work (Kelley, Kelloway, 2012). It is easier to use local expertise needed to quickly respond to the needs of customers in local markets. Teleworking also makes it possible to easily organize the work of people from different locations so that the company seemed to be closer to the customers and suppliers (naturally, provided that the organization uses effective communication and information techniques). A significant benefit of this form of working is the use of cultural diversity, especially in the fields in which innovation and creativity are valued (Gibson et. al., 2014). Economic and environmental benefits (costs reduction in travel and real estate, sustainability), which have been highlighted since the 'dawn' of remote work, are now becoming increasingly important, and are prioritized in some organizations.

Virtual collaboration can bring long-term benefits in the form of improved human capital indicators (such as increased employee efficiency and productivity or team member satisfaction). It can result in more effective recruitment, improved attractiveness of the company as an employer, and, in the long run, gaining a competitive advantage in the market. Virtual work can help retain valuable professionals in the organization when their personal matters force them to change their place of residence. The needs of young workers,

especially the Gen Y'ers and the Millennials, who are known for their ambition to maintain work-life balance, cannot be underestimated. After all, virtual work gives them flexibility and independence (Al-Ani, Horspool, Bligh, 2011; Jonsen, Maznevski, Davison, 2012).

There are more advantages of working in virtual teams pointed out by researchers. Electronic communication provides time to process, assimilate, or even better understand information. Visual anonymity can be also considered an advantage for some team members. For those who are shy and have difficulty expressing their opinions in face-to-face contact, this form of communication may be even beneficial because it makes it easier for them to find the courage to express their own opinion (Nurmi, 2011).

Despite the many opportunities and benefits mentioned, virtual work creates new challenges for teams and the people who manage them. The marginalization of nonverbal communication in this form of collaboration is a serious problem. The inability to observe the behavior of other team members, even if they are, for example, video conferencing, can lead to misunderstandings and misinterpretations, especially when multicultural teams working together. Virtual teams might also face obstacles to achieve high results, which can be precisely a consequence of the difficulties in coordinating their work. Leadership imperfections cannot be underestimated. The competencies necessary to work with virtual teams are much different from those considered to be 'classic' (Klitmøller, Lauring, 2013; Kirkman, Rosen, Gibson, Tesluk, McPherson, 2019).

Employees working in virtual teams may have difficulty interpreting written and verbal messages. Silence, for instance, does not necessarily mean a lack of concentration – it may be the result of an intense effort put into the process of listening and thinking. Virtual work causes a physical distance and results in a lack of connection between team members, and managers are getting to know their subordinates, their needs, and expectations more slowly than in traditional conditions. Informal communication, which plays an important role in building the organizational climate, is significantly reduced. Building a sense of belonging to the team when working remotely can be more difficult when team members rarely meet. Isolation and loneliness were also identified as common disadvantages of this type of work (Maznevski, Chudoba, 2000; Avolio, Sosik, Kahai, Baker, 2014).

In reality, it is not rare that organizations and their managers are reluctant to introduce remote working: they believe that the company does not benefit from such a solution as greatly as the employees. Managers find it more difficult to influence team members, which leads to a decreased level of motivation, declines in performance, or lower productivity. All those factors may have a negative impact on employee engagement. There may also be difficulties with building trust and relationships between team members or in terms of conflict resolution.

The remote work era marks a general redesign of corporate thinking (the used phrase has a symbolic meaning and can refer both to a large, global organization and a small, local one). In the traditional sense of work, people should always be in the office, monitored, on view, at hand, always at their boss' disposal, which has no place in the new, virtual, organizational reality (Pinjani, Palvia, 2013; Zander, Mockaitis, Butler, 2012; Wildman, Griffith, 2015). This change in mentality can only take place if we show evidence, such as a 2018 study conducted by Bocconi University at the Carlo Donden Research Centre (Agostini, 2020). In this study, two groups of 150 employees were compared. The first group worked traditionally, commuting to the company at set times. People in the other group freely decided where to perform their duties only one day a week. The result after nine months of the experiment was that employees who had the right to flexibility in the

way of performing the assigned tasks achieved 3–4% higher productivity than the other group. They were more satisfied and had a lower absence rate than their colleagues. This means that well-organized remote work can increase productivity and work-life balance. However, poor management in that field can contribute to inefficiency and reduce employee motivation.

An analysis of 4,641 logs written by Microsoft developers (mentioned at the beginning of the article) (Butler, 2020) provided similar arguments. The participants of this study found that these logs helped them achieve work-life balance and gave them the feeling that the company cared about them during this difficult time of the pandemic. The author points to a broader perspective: challenges faced by engineers in large technology companies, who radically changed their work mode to the remote one; individual strategies for dealing with these challenges; conclusions for the future that can be formulated to increase the satisfaction; and the well-being of teleworkers.

Thanks to the new opportunities offered by digitalization, remote e-work is becoming an increasingly popular way of working in many developed countries, enabling people to choose where, when, and how they will perform their daily work duties (Charalampous, Grant, Tramontano, Michailidis, 2018). Research suggests that this may have paradoxical consequences for individual well-being: the greater the professional autonomy of remote e-workers, the greater the effort they put into their work. This dependency can influence the well-being of an individual in a negative way (State of Remote work 2018; Mazmanian, Orlikowski, Yates, 2013). One possible explanation for this contradiction is that groups and different types of remote e-workers are not distinguished yet, and the working conditions and consequences of remote work for individual well-being may vary depending on the kind of remote location. Another possible explanation is that existing research is based on an ambiguous definition of the employee or virtual team autonomy.

The implementation of telework requires using a set of key technologies, which can pose a major challenge to many organizations due to costs, skills, and competencies. It is a priority to secure broadband Internet access, which supports emails, team workspaces, instant messaging (IM), and VoIP or business phone lines (especially ones integrated with the organization's PBX), but also to give access to web conferencing and enhanced media tools like video conferencing. A properly implemented teleworking system can be incorporated into the structure of the organization (or, as the experts say, modify the organizational DNA) and positively change it, leading to operational improvements, increased productivity, better work-life balance, and stability in employment (Greenberg, Nilssen, 2008).

How can technology be used to support remote work in today's world? Several solutions proposed by tech companies, which are currently used in remote operations are platforms, such as Zoom, Teams, Skype, Google Hangout, GoToMeeting, and CiscoWebexP, offering a variety of services, from HD video and audio calls to real-time subtitle recording, intelligent messaging, screen sharing, private conversations, and more. Depending on the version that is being used (free or paid), the number of participants in the online meeting and the presence of additional features may vary (Greenberg, Nilssen, 2008).

Researchers indicate the aforementioned secure, broadband Internet access to the information and the organization's key applications as the most basic technology useful in remote working mode. There are three issues linked to this requirement:
- Business telephone line – preferably with a logical connection to the organization's PBX;

- Access to web conferences, enabling participation in meetings and cooperation on documents, presentations, and other audiovisual projects with colleagues and people from the outside;
- The ability to use instant messaging (IM) to keep employees in close contact with their colleagues and teams. The IM technology quickly gained recognition in the world of customers and was adopted by participants of different business processes, who create teams independent of geographic location.

Other technologies include access to the document repositories (such as Microsoft SharePoint server) and audio and videoconferencing services. Among useful technologies identified in the Harris Interactive Omnibus research, one can mention document repositories, instant messaging, and audio, video, and web conferencing services (Greenberg, Nilssen, 2008).

The key to harnessing these technologies and making them available to teleworkers, mobile workers, and members of distributed teams is cybersecurity, which can be relatively easily monitored when work is done in an office – a physically identifiable facility. But is this really so? The researchers suggest that we are dealing with a certain paradox. As we entered the Internet age, the security of physical objects was threatened by unauthorized attempts to access email, phone calls, and data stored on servers. The truth is that the security is only good to the extent that authentication systems, firewalls, and voice/data encryption are effective throughout the whole information path. If these systems are used at the level of server – as they should be – then remote work does not significantly increase the risk (https://harris-interactive.co.uk/solutions/harris-24).

The above theoretical discussion can be summarized in the form of a graph (see Figure 1). The factors influencing the effective transition to remote work mode are shown together with the opportunities that arise as a result of the implementation of the remote work model in the organization and the threats that this mode of operation entails.
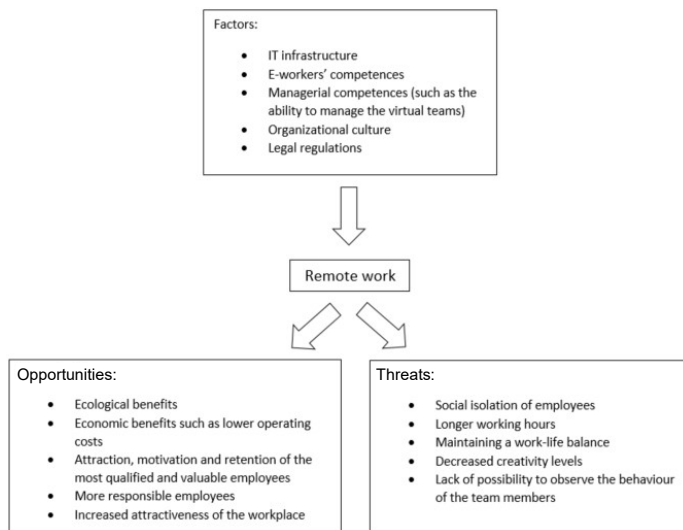

Figure 1. Model of transition to remote work mode

Source: Own elaboration.

4. RESEARCH METHODOLOGY

The rapid spread of the coronavirus throughout the world and the sudden increase in the number of cases of the COVID-19 disease caused by the virus forced the Polish government to react. On March 12th, 2020, a state of epidemic threat[4] was introduced, and an epidemic state was introduced just three weeks later, on March 23rd. To minimize the risk and the number of infections, the government introduced a number of restrictions, such as closing schools, introducing remote learning, restriction of movement, ban on gatherings, sports, and cultural events. At the same time, a recommendation for the organizations was issued to transition to the remote work mode, if it was possible. The administration bodies also faced the challenge of reorganizing their work. Hence, the research problem concerned the identification of barriers and the needs of municipal and city offices with poviat rights in the perspective of employees switching to remote work. The aim of the research was to explore the issue of remote work in government offices (as organizations considered to be slower to adapt to changes) and provide a diagnosis, which would help pave the way for the future development in the field of digitization in those institutions.

In May and June 2020, an internet survey[5] was conducted with the authorities of local government units (LGUs) at the commune level from the Mazowieckie Voivodeship, as part of the project 'Sustainable development of the Mazowieckie Voivodeship in the new system of NUTS2 and NUTS3 units. Metropolitan, regional, and sub-regional level'[6]. The questionnaire was sent to all 314 commune offices of the Mazowieckie Voivodeship[7]. The final number of completed questionnaires was 136 (return rate: 43%). The surveyed local government units were divided into the following categories:

- Statistical regions according to the NUTS classification: the NUTS 2 region 'Warsaw capital' and the NUTS 2 region 'Mazowiecki regional'[8].
- Type of commune: municipal commune and city with poviat rights, urban-rural commune, and rural commune.

The division is separate and exhaustive. Each research unit can be assigned only to one class of a given category. Statistical inference was performed using non-parametric tests due to the, at most, ordinal level of measurement of variables and their qualitative nature.

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[4] Pursuant to Art. 2 sec. 22) and 23) of the Act of December 5, 2008, on preventing and combating infections and infectious diseases among people, the state of epidemic threat is a legal situation introduced in a given area in relation to the risk of an epidemic in order to take preventive measures specified in the Act, while epidemic state means the legal situation introduced in a given area in connection with an epidemic in order to undertake the anti-epidemic and preventive measures specified in the Act to minimize the effects of the epidemic.

[5] The survey consisted of 24 questions. The LIME Survey software was used to carry out the study.

[6] The project is implemented by the Marshal's Office of the Mazowieckie Voivodeship in Warsaw, Warsaw School of Economics and Warsaw University of Technology as a part of the strategic program of scientific research and development 'GOSPOSTRATEG – social and economic development of Poland in globalizing markets.' It was financed by the National Center for Research and Development.

[7] During the studies, an email reminder was sent twice with a request to complete the questionnaire and a telephone contact was made once regarding the same matter.

[8] For more on the division of the Mazowieckie Voivodeship into the statistical units, see Statistics Poland / Regional Statistics / Classification of Territorial Units / Classification of Territorial Units for Statistics (NUTS) / The history of the NUTS classification/ NUTS 2016 revision [access: 24.11.2020].

The relationships between variables were tested with the chi2 test of independence. U Mann-Whitney tests were performed to investigate the relationships between two independent groups, and the differences between more than two independent groups were investigated using the Kruskal-Wallis one-way analysis of variance (multiple pairwise comparisons) with the Bonferroni correction. The significance level adopted for each test was 0.05.

5. THE RESEARCH RESULTS

The results of the survey show that, in 44% of the surveyed local government units, at least half of the employees could perform their work remotely. A statistically significant difference occurs between the responses of the representatives of local government units from the area of NUTS 2 region 'Warsaw capital' and NUTS 2 region 'Mazowiecki regional.' More often (57%), the possibility of remote work was declared by the representatives of local government units from the NUTS 2 area 'Warsaw capital.' Such a possibility was indicated by 40% of local government units from the NUTS 2 region 'Mazowiecki regional.' The type of commune did not differentiate the answers in a statistically significant way.
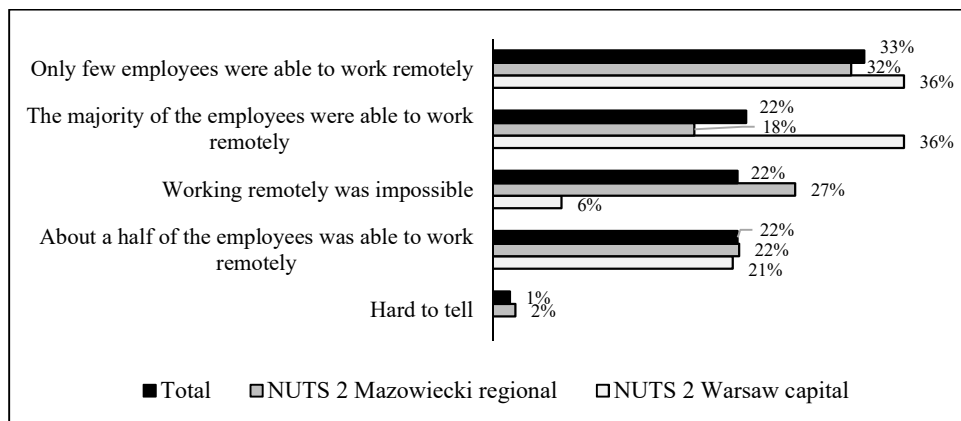

Chart 1. Possibility of remote work

Source: Own analysis based on the survey conducted in the project 'Sustainable development of the Mazowieckie Voivodeship in the new system of NUTS2 and NUTS3 units. Metropolitan, regional and subregional level' GOSPOSTRATEG. Question: Which of the following statements most closely describes the situation in your unit following the declaration of the COVID-19 outbreak? (n = 134).

The necessity to be physically present in the workplace was identified as the biggest barrier for remote work of the officials. The next obstacle (indicated almost half as often) was the lack of hardware and appropriate software enabling remote work. At the same time, the lack of software was mentioned less frequently by the representatives of local government units from the NUTS 2 area 'Warsaw capital.' Nearly 1/3 of the respondents indicated that the insufficient number of e-services provided by their organization is the impediment to changing a work mode. The lack of documents regulating remote work and

the lack of experience in that form of work were also mentioned. The lack of documents was indicated more often by respondents from the area of NUTS 2 'Mazowiecki regional.'
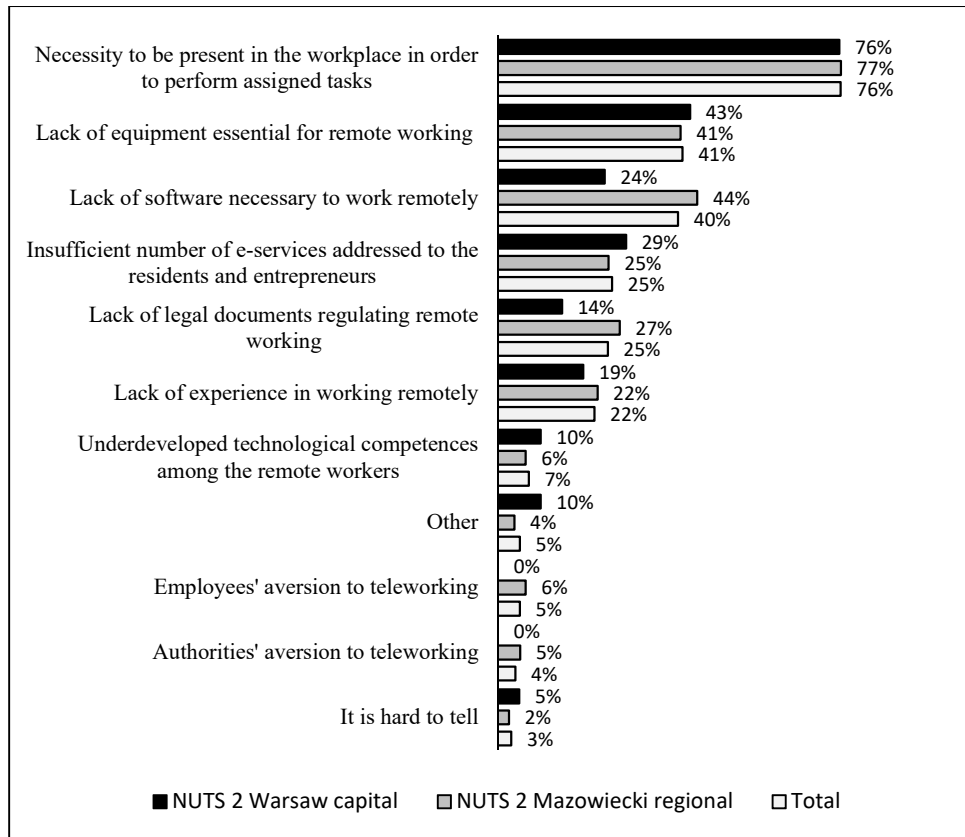

Chart 2. Limitations of remote work

Source: Own analysis based on the survey conducted in the project 'Sustainable development of the Mazowieckie Voivodeship in the new system of NUTS2 and NUTS3 units. Metropolitan, regional and sub-regional level' GOSPOSTRATEG. Question: Which of the following statements most accurately describes the situation in your unit following the declaration of the COVID-19 outbreak? (n = 106). A multiple choice question.

The respondents also referred to the effectiveness of remote work. In most of studied cases (61%), it was assessed at a level similar to that of stationary work. For 1/4 of the respondents, it was at a lower level. Only 4% of respondents indicated the increased effectiveness.

The respondents were also asked to identify the actions which would facilitate the introduction of remote work in their units. Unsurprisingly, the purchase of software enabling remote working was the most frequently selected answer. Next, the necessity of further digitization of the office and increasing the availability of offered e-services was indicated. About 1/3 of respondents believe that employee training is also necessary, both

in the organization of remote work and the use of software enabling the workers to perform the assigned tasks.
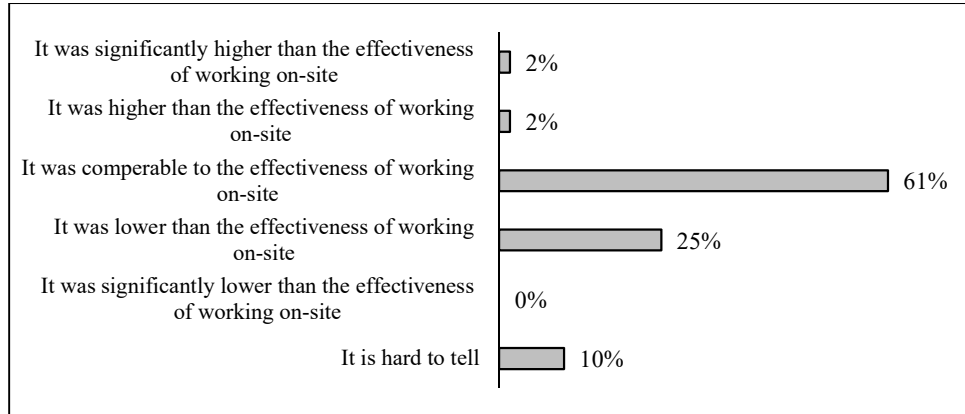

Chart 3. Evaluation of the effectiveness of remote working

Source: Own analysis based on the survey conducted in the project 'Sustainable development of the Mazowieckie Voivodeship in the new system of NUTS2 and NUTS3 units. Metropolitan, regional and sub-regional level' GOSPOSTRATEG. Question: How do you assess the efficiency of work in your unit in the case of so-called remote work? (n = 59).
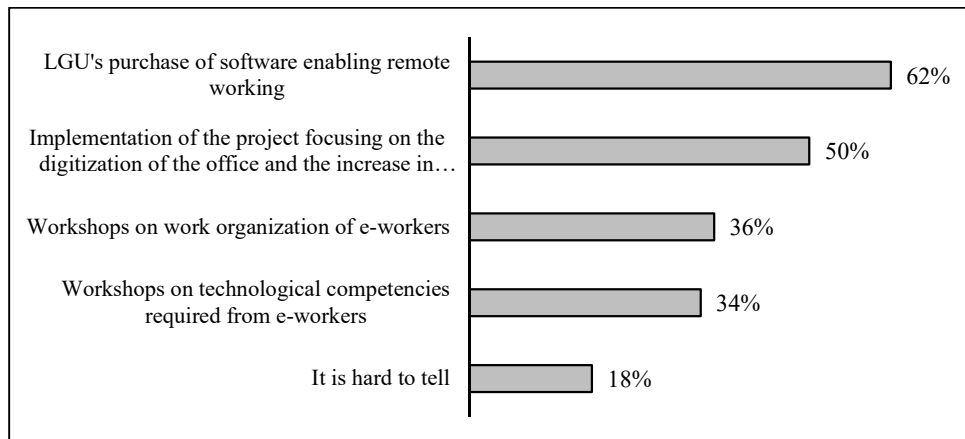

Chart 4. Needs of local government units in the implementation of remote work

Source: Own analysis based on the survey conducted in the project 'Sustainable development of the Mazowieckie Voivodeship in the new system of NUTS2 and NUTS3 units. Metropolitan, regional and sub-regional level' GOSPOSTRATEG. Question: What actions would increase the effectiveness of the so-called remote work in your office? Please select all that match (n = 50).

6. DISCUSSION

The formulation of conclusions and recommendations for the Polish local government offices resulting from the discussed study requires presenting the issue in a much wider context.

The e-Government benchmark 2018 report prepared for the European Commission showed the possible ways of improving public services in Europe and identified the frontrunners in the field of the digitization of public administration. Among the leaders, there are 9 EU countries (Malta, Austria, Sweden, Finland, the Netherlands, Estonia, Lithuania, Latvia, Portugal, Denmark) and Norway. The quality of public e-services in these countries is already at a very high level and is continuously improving. The transparency and scope of activities undertaken by their governmental bodies are systematically expanding. The best effects in terms of digitization of public administration and the use of public Internet services are achieved by Estonia, Latvia, and Lithuania (Koch, 2018).

For many years, Estonia has set an excellent example in this field, as it has successfully created an almost entirely digital society over a period of 20 years. The digitization processes were carried out in parallel: the country not only created appropriate systems and a central state server (x-Road) but also gave Internet access the status of a constitutional guarantee. In 2007, the citizens received electronic ID cards. It was a breakthrough event in terms of the possibility of using a wide package of e-services not only for official matters but also for giving electronic signatures or getting e-prescriptions. ID-kaart supports over 4 thousand services and makes it possible to hold local and parliamentary elections. Since 2014, ID cards are also offered to foreigners (which is not the same as granting citizenship but means the possibility of using e-services) (Małek, Kudaj, 2017).

7. CONCLUSIONS

7.1. Research results

Based on the analysis of the survey results, it can be concluded that remote work is a new challenge for Polish local government offices. Despite the worldwide trend of the progressive development of remote work culture, Polish local government institutions are at the initial stage of implementing solutions and organizing remote work. The necessity to be present in the workplace to perform assigned tasks is identified among the greatest obstacles to introducing that change. On the one hand, the importance of this problem might be a result of a belief – and custom – according to which work can be performed only in a designated place. On the other hand, however, it may result from the visible lack of hardware and software enabling remote work. Insufficient systemic solutions (among others, the lack of clear legal regulations allowing the transition to remote work) are pointed out as another barrier for further development in that field.

The survey shows that – despite numerous investments in recent years (including ones from the European Structural Funds) – the level of digitization of Polish public administration entities is insufficient to ensure undisturbed circulation of electronic documents or satisfactory remote service to the applicants, both of which are crucial for maintaining job performance in the remote mode of work. Another challenge is the need to improve digital competencies among employees and management. Technological and time management competencies as well as competencies in solving problems and making decisions are especially important. In the case of management, training in the organization of remote work, e.g., in the context of control and autonomy of an e-employee, and the

acquisition of virtual team management competencies, are also of key importance. The last of the discussed issues concerns cybersecurity. When transferring the public administration entities to the remote work mode, one cannot forget about new threats that did not take place in the case of stationary work, such as possible leaks of confidential data.

Thanks to the use of information and communication technologies by central and local government institutions, e-government is to transform relations with various entities, primarily citizens and enterprises. The goals of this transformation range from increasing the quality of public services, through more effective policy coordination and more efficient use of resources, to supporting the transparency of the government's actions. In Poland, large funds were allocated for these purposes, but there was no coherent structure, determination in implementation, and most projects connected with this subject were not completed. The sins of the Polish 'e-administration' are primarily the mentality of officials, their attachment to a stamp and paper, lack of coherence and coordination in implementing changes, and inability to promote the attractiveness of e-services. Naturally, one cannot fail to mention the digital exclusion of many citizens in this context (*Grzechy e-administracji*, 2016).

7.2. Recommendations

Based on the model of implementing remote work presented in the theoretical part of the article, and translating it into the practice of management, the following factors enabling the transition to the remote work mode were indicated: IT infrastructure (e.g., hardware, software, e-services, etc.), employee competencies, managerial competencies, organizational culture, and legal regulations. The conducted research shows strong deficiencies in all these areas, which results in the limited possibilities of implementing remote working. For a change to be made, action needs to be taken in all indicated areas. This leads to the conclusion that the national digitization policy must take into consideration not only the implementation of e-services but also the entire component of additional activities, including training of employees and management staff and the provision of equipment required for remote work.

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