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# Working from home or back to the office? - The impact of the recent turbulence on office work

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## THE AIMS OF THE PAPER

Previous studies have shown that office spaces are priority areas for research. The shocks of recent years, such as the pandemic, have radically changed the lives of office workers in particular, so researchers consider research related to office spaces increasingly relevant. This research aims to present a systematic literature review (SLR) on the relationship between turbulent times working from home (WFH) during the pandemic and outline the possibility of WFH during the pandemic and that the workers will continue to work in the home office.

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## METHODOLOGY

The study uses the method of systematic literature review to achieve the research goal. The process provides an opportunity to transparently collect empirical studies on the given research question. The research took place between 2021-2022, with 54 relevant literature items being included for processing.

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## MOST IMPORTANT RESULTS

Our results showed that working from home was and remained an industry-specific option. The competition for talent has intensified in recent years. Employers can get the most out of them, reconstruct their operations and determine what can be monitored remotely. Our results also show that the time, energy and cost of commuting to work are the second most influential motivational factors. In this way, the costs of the employers can also be reduced since they can optimize their office space in connection with the new work organization, thereby reducing their rent and overhead costs.

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## RECOMMENDATIONS

The literature review outlined that by adapting and rethinking the experiences during the pandemic, many organizations can organize their work processes more efficiently in the future in accordance with health regulations. Thanks to the shift towards a knowledge-based economy and the spread of Industry 4.0, remote work can be one of the decisive tools for curbing climate change.

*Keywords:* work from home, home office, pandemia, back to the office, telework

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## INTRODUCTION

In the last decades, the labour market has undergone significant changes, mainly due to the evolution of the way of working, focusing on the workplace, mainly due to industry 4.0 and the acceleration of digitalisation (Tortorella *et al.* 2019, O'Brien & Yazdani Aliabadi 2020). Much research is currently being conducted on office space, focusing on the last turbulent period, mainly due to the extreme shock caused by the new coronavirus COVID-19 (SARS-CoV-2). The pandemic has necessitated mandatory changes in almost every aspect of our lives (Adams-Prassl *et al.* 2020). During a pandemic, record numbers of workers are working from home. This radical change will likely impact traditional spaces and working methods long-term. Organisations have been forced to take mandatory steps to seek government intervention to contain the virus (Bartik *et al.* 2020a). Those organisations that have been able to do so have provided teleworking for their employees (Caligiuri *et al.* 2020). Others have closed indefinitely, with some organisations able to continue operating without teleworking (grocery stores, public transport, waste collection, etc.) (Bartik *et al.* 2020a). Home office, telework, and alternative/virtual office are widely researched due to COVID-19. However, it is tough to grasp this research area. In the research, these concepts are diverse and less defined; some places use remote work as a synonym - home office, and some distinguish between these atypical forms of work. This can provide distorted data for single research. The term telecommuting can be associated with Jack Nilles (1975). According to the Hungarian Labor Code, "teleworking is an activity carried out regularly at a place separate from the employer's premises, which is carried out using a computer technology device and the results of which are transmitted electronically" (Mt. Law I of 2012 § 196 (1), amended: XXXIV of 2019 § 101 of the Act). The home office is part of remote work; when the employee performs his tasks away from the site, the work is done from the employee's home using information communication devices, whether these are his own devices or those provided by the organization for the time of working from home (Hárs 2012).

While adequate technical support and digitalisation are essential prerequisites for WFH, its implementation will completely change how employees think (Pinzone *et al.* 2017), communicate and interact with work and colleagues (Kovaitė *et al.* 2020, Pató 2022). The sectors most affected were education, administration, IT and finance (Jarjabka *et al.*, 2020; Bartik *et al.* 2020b). As a result, working from home

rapidly spread, leading to an increase in the share of teleworkers, both domestically and abroad (Bauer *et al.* 2019, Arntz *et al.* 2020, Venczel-Szakó *et al.* 2021). To enable teleworking, organisations could take several measures (Akkirman & Harris 2005). First, they had to provide employees with the conditions and technology to work from home. For example, employees had to be equipped with new communication platforms to negotiate and meet with colleagues and customers (Pataki-Bittó 2018, Shou *et al.* 2019). Accelerating technological change was also critical to introducing online education or developing e-health or financial services already underway (Bagó 2020, Brodie *et al.* 2020, Thékes 2020). Providing adequate facilities is critical, as Bloom *et al.* (2022) reports that 42% of full-time employees worked from home in May 2020.

Considering this, our research team has identified a gap in the current turbulent times. Recognizing how much scientific literature is available on pandemics and the home office, this research focuses on whether the COVID-19 pandemic impacted WFH. Thus, our study investigates the relationship between office work and work-from-home (WFH) during the pandemic using a specific methodology, a systematic literature review (SLR) of the study area. During our research, we uncovered the gap in that there was a sector-specific possibility to work from home, which needs to be mentioned in many types of studies or superficially. Furthermore, in the second part of the investigation, we deal with the current workplace problem, during which it is revealed that many employees would continue to work from home, so organizations have difficulty in calling employees back to the office and what changes are taking place in the restructuring of the organizations' work organization as a result. The relevance of the research question is confirmed by the fact that the labour market is currently facing the problem of difficulties in recalling workers to office work (Davis *et al.* 2020; Zádori *et al.* 2020, Narayanamurthy & Tortorella 2021).

## MATERIAL AND METHODS

In our study, we used a systematic literature review (SLR). It was conducted based on the above-mentioned predictive data and shocks. The main objective of our SLR was to explore the changes in teleworking practices in the context of the global spread of the COVID-19 virus. The SLR method provides a means to define the problem domain of the discipline related to the research question by specifying information sources, search keywords, and exclusion criteria, thus providing reliable information and

methodological transparency and allowing for future replication. The SLR method analyses the research questions by specifying information sources, search keywords and exclusion criteria, thus providing reliable information and methodological transparency and allowing future replication (Booth *et al.* 2012). We have placed our empirical approach within the theoretical framework presented below and aimed to contribute to this field. Our primary research questions were:

*RQ1: Was working from home during the virus pandemic possible?*

*RQ2: Would the office workers continue to work from home?*

As a first step, we maximised the possible keywords and phrases and used these to launch a search. It resulted in a very high number of hits (9.178), which led to modifying the search criteria. We also filtered out relevant terms at the beginning of the study. Next, the keywords virtual office, alternative office, new ways of working, and teleworking were added to the keywords. The following research step used boolean operators to set the relationship between the result sets. The search is performed by entering the TS tag, i.e. by subject (Table 1.) (Alliant Library 2001).

**Table 1. Using the Boolean operator in a search**

|     |  |
|-----|--|
| [a] | (TS = ("home office" AND "work at home" AND TS = "new normal").  |
| [b] | (TS = "indoor environment quality" AND "ergonomy" AND "parametrised indoor environment" AND reverse "computer workstation ergonomics" AND reverse workplace health and wellbeing AND reverse health promotion) |
| [c] | (TS = "workplace health and wellbeing" AND "job attitudes" AND cost and benefits of home office AND stress about home office AND work hours at home *)   |
| [d] | (TS = „virtual office, AND alternative office, AND new ways of working, AND telework”)   |
| [e] | (TS = "Home Office OR Telework, OR "New normal" OR back to the office, AND pandemic OR COVID*,”)   |

Source: own editing based on Alliant Library (2001)

The final source was the [e] line. The next step was to filter out the duplicates with Zotero. After it, a snowball method was applied, and 43 additional articles were selected from the previous studies frequently cited in the selected articles. The last number of literature is 172; after reading the abstracts, the research team filtered out non-relevant literature based on the keywords defined for the search (118 articles), resulting in 54 relevant literature items being included for processing (Figure 1).

COVID-19 was a keyword in all the selected articles, with the term Home-office appearing in most. Industry 4.0 and health were the next most frequently used keywords, followed by stress and telecommuting. Finally, satisfaction, loyalty, work-life balance, and "return to office" were frequently used after a virus outbreak. The results of the SLR research are presented, for which a synthesis table has been prepared; see Appendix 1.

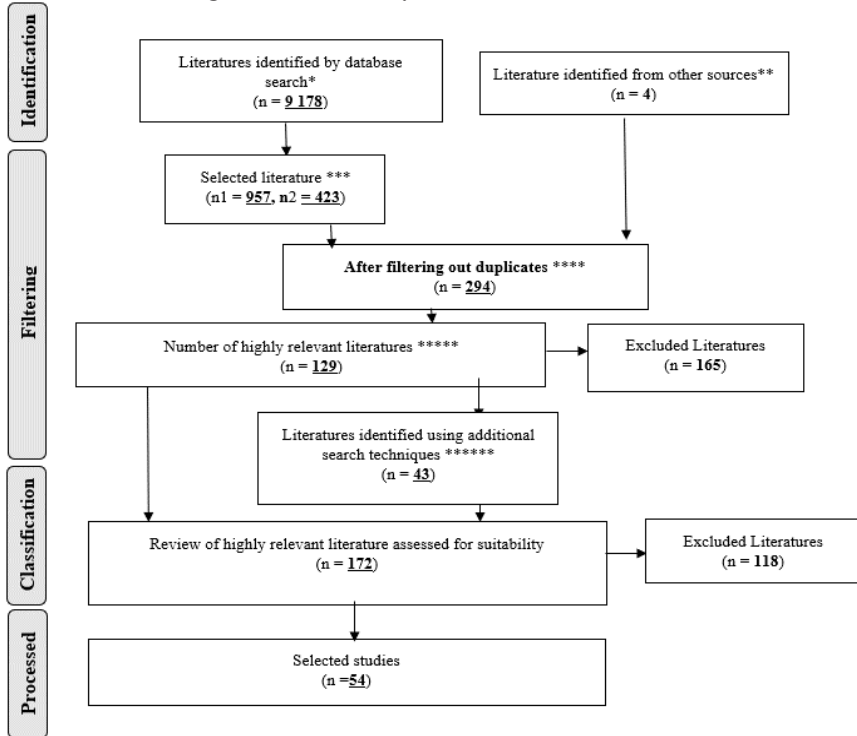
The data was collected by referencing the articles, reading the abstracts, and sorting the identified literature by subject. Initially, we did not apply a date filter during the search. However, we narrowed the search criteria to the last 20 years to obtain relevant literature. Thus, 35 papers written during the pandemic were included among the 54 papers

investigated. Next, the scientific value of the selected studies was assessed. Based on an international ranking system, the literature is classified into four main categories: Q1, Q2, Q3, and Q4. Hungarian literature is classified as A, B, C, and D, where the A category is ranked at the top. Based on the rating of the selected journals, the majority were published in Q1 journals, and most Hungarian-language articles were published in B and C journals. The pieces were identified using the Scimago Journal Rank. The journals were selected based on their rating and relevance to their field of expertise, which publishes valuable scientific results.

## RESULTS

Our results show that in Question 1 - *Was working from home during the virus pandemic possible?* - sector-specific situations determined the opportunities for employers and employees to take advantage of working from home. In particular, working from home has adapted quickly and provided opportunities for the educational, financial sector, and other administrative work. In some cases, it was necessary to provide workers with training and tools to work smoothly. However, companies previously

Figure 1. Flowchart of systematic literature review



**Comments:**

\* The number indicates all literature from the various databases (Web of Science, Science Direct and ResearchGate).

\*\* The number of literatures recommended by experts.

\*\*\* Filter application: for journal articles and reviews.

\*\*\*\* using Zotero reference management software.

\*\*\*\*\* Evaluation of each literature by title, abstract, and then selection of the top 100 literature by Google Scholar reference number.

\*\*\*\*\* Using the snowball method.

Source: own editing based on the Scoping worksheet

offered the option of working from home could accept the sudden radical shift to full-time working from home much more quickly than those that had not. Working from home was impossible in sectors where personal presence is essential, such as agriculture, health, various services, grocery, passenger transport, etc. These sectors have felt the most severe adverse effects of the virus outbreak, as in most cases, work has been partially or restricted for short or long periods.

In the case of Question 2 – *Would office workers continue to work from home?* – our results identified several conditions for working from home in the future for both employers and employees. For workers who work in an office or do back-office work and have good electronic or telephone communication and contact with employers, colleagues and clients, it is possible to work from home.

Furthermore, our results show that the time, energy and cost of commuting to work is the second most influential motivational factor. These costs can be saved by working from home, and time can be spent on other activities. For companies, these factors could also be a competitive advantage in the future, as most employees can occasionally work from home and only come to the office at certain times. In addition, attracting talent is also a priority, and the hybrid working model could be used to recruit talented workers from less developed regions. It could also reduce costs for employers, as they could optimise their office space in connection with the new work organisation, thereby reducing their rental and overheads.

## LIMITATION OF THE STUDY

Given that the war between Russia and Ukraine is ongoing and the first effects of the resulting energy crisis are being felt at the time of writing, it is not easy to draw conclusions and inferences for the future at this stage. SLR research is a strictly regulated methodology. However, problems can arise in these research methods, as in all research. The objective approach is the primary consideration during the research, but minimal bias can be encountered during the tests so that the results can be misleading. Due to the strict regulation and reproducibility of the genre, the reader can check the quality of the research. During the present research, the conceptual framework of home office and remote work, used as synonyms, could have distorted data.

## DISCUSSION

The spread of Industry 4.0 in the 21st century was accelerated by the digital transition due to COVID-19 (Adams-Prassl *et al.* 2020). Longo *et al.* (2017) research report that several digital learning management systems have appeared or are under development, supporting our results. During the pandemic, using these systems became a necessity, which Bartik *et al.* (2020b) and Bloom *et al.*'s (2022) research also confirm. These new systems and applications have greatly transformed employee habits, although their efficiency is not representative. The reviewed articles also confirm our RQ1 results, according to which organisations that previously used remote work, e.g. they had experience, adapted better to the sudden transition and invested in innovation of existing technological resources (Mudditt 2020, Longo *et al.* 2017). Although insufficient information is yet available, these ways of working are likely to change in the post-COVID world (Davis *et al.* 2020, Longo *et al.* 2017).

The first effects of the epidemic are beginning to emerge from the results of the SLR research. The roles of personal services (B2B), retail, hospitality and tourism (Fadinger & Schymik 2020) have declined significantly, which correlates with and supports our findings on question 1. The actors in these sectors felt the negative impact of the virus the most, and this is in line with the research of Bartik *et al.* (2020b), Bagó (2020) and Buzási & Pásztor (2020). The number of workers in the service sector fell by nearly 17%, resulting in almost 24 million unemployed in the United States of America in ten months (Ludvigson *et al.* 2020). Based on Mlitz's

(2020) survey, during the pandemic in the USA, almost half of the interviewed workers, 44%, were able to work from home, which is also related to the results they obtained since office workers were able to work from home during the epidemic, which Bloom *et al.* (2022) also confirmed our results that in May 2020, 42% of full-time employees worked from home. The European research also confirms these percentages by the IAB before the crisis ("Frequently living person panel"), according to which, in May 2020, only 18% of employees worked exclusively at their workplace. As each wave of epidemics passes, some companies expect and others require that employees return to the office, wear masks, and maintain physical distance according to health regulations. In turn, these companies limit movement in crowded places and redesign their offices (Brodie *et al.* 2020, Narayanamurthy & Tortorella 2021).

In the second phase of our research, we examined whether office workers would continue to work from home in the future. Based on our results mentioned above, this issue is very complex. Since the Covid-19 epidemic, teleworking and working from home will likely affect an increasing population share. Research by Davis *et al.* (2020) and Fadinger & Schymik (2020) suggests that in the short term, organisations are likely to continue to support home working to contain the spread of the virus. In the longer term, positive experiences with teleworking are likely to lead to regular teleworking. According to research by Brodie *et al.* (2020), 80% of respondents would like to work from home. 64% of the employees they surveyed felt motivated to work remotely, and 68% said they were able to complete their tasks without interruption. 80% of them could complete their duties by the deadline because 87% had the necessary technology and equipment. Studies on employee perceptions of teleworking by Bloom *et al.* (2013), Barrot *et al.* (2020), and Blaine (2020) have shown positive results. Many teleworkers have freed up time spent commuting and travelling, which they can use more effectively while increasing their loyalty to the organisation and improving their work-life balance. They say they would still prefer to work from home, which supports our research findings. However, a study by Mlitz (2020) shows that around a quarter of workers surveyed would prefer not to work from home in such health-threatening situations. WFH, as an atypical form of work, could be a complex motivational factor. These are related to our findings as they often overburden workers and cause stress. However, papers show that such situations have been managed over time (e.g. afternoons studying

with children and returning to work) (Bondarouk & Ruël 2009, Fodor *et al.* 2011, Krajcsák 2016).

Research confirms that working from home gives workers greater autonomy, allowing them to balance work, housework and childcare (Ancarani *et al.* 2019). Working from home can improve communication within the family (Akkirman & Harris 2005) and increase family savings, for example, by reducing the costs of shopping, eating out, clothing and commuting (Sullivan & Lewis 2001, Hill *et al.* 2003).

SLR has shown that a home office environment positively impacts organisations and individuals. Teleworking can increase productivity and employee satisfaction (MacEachen *et al.* 2008, Nicolás & Toval 2009, Li *et al.* 2019, Noé 2004). Furthermore, it can increase individual efficiency by building trust (Bauer *et al.* 2019) and balancing control and autonomy (Bloom *et al.* 2013, Arntz *et al.* 2020, Krajcsák 2016). Teleworking can also benefit families through flexible working hours (Hill & Weiner 2003). It is important to note that workloads increased in many places as workers had to deal with several things at once: completing tasks at work, taking care of tasks at home and possibly looking after families during the epidemic. However, the articles showed that these situations were managed over time, for example, by studying with children in the afternoon and returning to work (Bondarouk & Ruël 2009, Fodor *et al.* 2011). Hence, our results suggest that teleworking can make jobs more attractive as workers commute less and improve work-life balance for those working from home (Harrington & Walker 2002, Davis *et al.* 2020). Working from home can save workers time, energy and money (food, travel, clothing). Alonso *et al.* (2017) research predicts a 10% decrease in commuting to work in Madrid by 2031 and that atypical work forms can reduce peak traffic. However, according to O'Brien and Yazdani Alibadi's (2020) model, teleworkers' off-peak trips will increase. Effective homeworking also requires developing an appropriate control system (Arntz *et al.* 2020). Clear assignment of tasks can facilitate control, but it should be taken into account that workers may be more loyal to their workplace if they have sufficient autonomy (Krajcsák 2016). Furthermore, if companies have the opportunity, they can further improve workers' efficiency by providing online training on task and time management practices (Buzási & Pásztor 2020, Caligiuri *et al.* 2020, Pató 2022). During the construction of HR management systems, a holistic approach is needed to support the digital transition (Kömüves *et al.* 2022). Human resource management affects

all process functions and must be strategic and conceptual: recruitment, training/studies, qualification, personal development, health promotion and other support services. (Buzási & Pásztor 2020, Gopalakrishnan & Guilherme 2021). During the research, it was also revealed that given the shock effects, the organizations could redesign their work processes most effectively as soon as the crisis managers and strategic planners at the companies could cooperate quickly and efficiently. Furthermore, the obtained results revealed that those organizations that had previously used atypical forms of work promptly adapted to the radical change, so it became necessary to prepare a workforce security plan for the future, i.e. to provide employees with a wide range of training before they face the new with their tasks (Kömüves *et al.* 2022).

Our findings, supported by the research of Narayanamurthy & Tortorella (2021), suggest that organisations can gain a competitive advantage (Bencsik 2004), through teleworking as there may be fewer geographical barriers to accessing available talent. Workers only need to move close to their workplace if they can work from home and only occasionally visit the office (Arntz *et al.* 2020; Brodie *et al.* 2020). Retaining/recruiting skilled, talented workers is costly (e.g. exit interviews, accrued leave, ongoing benefits, vacancy costs, temporary workers, overtime, recruitment, selection and hiring costs, training, etc.). According to research by Hill *et al.* (2003), these direct and indirect costs account for 41-241% of annual wages, depending on the type of job. Benefits of restructuring include reductions in rent, capital costs, facility operation and maintenance, and other costs (Sullivan & Lewis 2001, Hill *et al.* 2003). According to surveys by Brodie *et al.* (2020), these costs can account for 10-20% of personnel costs. It is predicted that some businesses can reduce their real estate costs by up to 30% (Barrot *et al.* 2020).

From the point of view of future research, it would be essential to expand the research with generational differences, especially considering Generation Z, since the future labour market depends on them. Young employees think entirely differently about the online world, IT, and the office. The comparison of generations can therefore be meaningful from the point of view of the motivation to work at home since many studies are currently dealing with generational differences in this topic area as well. Reviewing the generational differences in a systematic literature analysis, even in a regional breakdown, would be worthwhile. The research of Csepregi and Csanádi (2021) also confirms that young people also have different opinions

about working at home in a regional breakdown, depending on their level of education. The research of Kiss *et al.* (2022) also emphasizes generational differences concerning leisure consumption due to the coronavirus epidemic. This study confirms the general assumption that Generation X is opposed to the virtual world; even Generation Z adapts to it more efficiently and likes to use it. Furthermore, the development and retention of employees may be an important area of future research after the epidemic, which Jayathilake *et al.* (2021) research focus on young workers. All in all, the advantages and disadvantages of remote work could be demonstrated in general, depending on gender, age - generation, education, and work experience (working in an office or at home).

## CONCLUSION

Our research has shown that by adapting and rethinking the lessons learned from the epidemic, many companies can organise their work processes more efficiently in the future through health regulations. The epidemic has shown that the hybrid working models that have been developed have not necessarily been an obstacle to efficient working. As a result, the SLR demonstrates more workers will work from home in the future; solutions are currently needed to bring workers back to the office. The results also show that although no single solution exists, many changes are expected from organisations and workers. Workers' health is paramount, so bringing workers back to the office with the right motivational tools, such as distance, and prioritising hygiene, can work in the short term. However, it is essential to integrate atypical working patterns into the organisational culture.

In planning for these changes, employers can alleviate workplace pressures by introducing new customs, norms and practices. They can do this by breaking with the habits of the past, for example, by switching to shared desk work. Of course, this is one possible solution among many, ultimately a well-planned return to the 'new norm' that employers can now take advantage of and change the work environment to improve the employee experience. It can enhance collaboration and productivity while reducing costs. Overall, the changes brought about by the virus were long overdue. Nevertheless, companies can create a new, safer and more productive environment where employees can work offline or online and collaborate with colleagues to achieve organisational goals.

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## Appendix 1. Synthesis table from SLR research

| Reference                | Method   | Location                  |
|--------------------------|--|---------------------------|
| Adams-Prassl et al. 2020 | To study the labor market impacts of the coronavirus shock.  | UK, US, Germany           |
| Adrián-Lydon, 2020       | Uses job postings data from Indeed to give a real-time indicator of the impact of the pandemic on the labour market.   | Australia, EU, UK, Canada |
| Akkirman & Harris, 2005  | Virtual office and traditional office, from a single firm, were surveyed using Down, Hazen's Communication Satisfaction Questionnaire.   | Turkey                    |
| Alonso et al. 2017       | Case Study.  | Europe                    |
| Ancarani et al. 2019     | A database of secondary IoT case studies is used to identify an IoT project taxonomy through two-step cluster analysis.  | Europe                    |
| Arntz et al. 2020        | Describe the data and adopted methodology to compute the teleworkability index.  | Europe                    |
| Bagó, 2020               | Descriptive research.  | Hungary                   |
| Bailey & Kurland, 2002   | Search for telework literature yielded more than 80 published academic empirical studies.  | U.S.A                     |
| Balogh et al. 2020       | Examine how changes in the HRM practices of the domestic corporate/institutional sector are responding to the challenges of the coronavirus crisis.                              | Hungary                   |
| Barrot et al. 2020       | By reducing the quantity of labor, social distancing in turn leads to a drop in output which is difficult to quantify without taking into account relationships between sectors. | Europe - France           |
| Bartik et al. 2020a      | Drawing on a survey of more than 5,800 small businesses, this paper provides insight into the economic impact of coronavirus 2019 (COVID-19) on small businesses.                | U.S.A                     |
| Bartik et al. 2020b      | Traditional and non-traditional data to measure the collapse and partial recovery of the U.S. labor market.  | United States and Canada  |
| Bauer et al. 2019        | The paper analyses how offline and online communication channels are used.   | Europe                    |
| Blaine, 2020             | FAIA is an architect and materials researcher  | U.S.A                     |
| Bloom, 2022              | Descriptive research.  | U.S                       |
| Bondarouk & Ruël, 2009   | HRM is an umbrella term covering the integration of HRM and IT.  | N/A                       |
| Brodie et al. 2020       | Companies surveyed have at least 2,000 full-time employees.  | U.S.A                     |
| Buzási & Pásztor, 2020   | Hungarian government declared a state of emergency to deal more effectively with the resulting challenges and enacted several employment-related measures.                       | Hungary                   |
| Caligiuri et al. 2020    | Virtual collaborations amongst managers or technical experts.  | United States             |
| Fadinger & Schymik, 2020 | The impact of WFH on the risk of infection in German regions, using a static 62-sector model with input-output relationships calibrated.   | Germany                   |
| Fodor et al. 2011        | The "sequential logic" of research planning and in preparing the questionnaire.  | Eastern Europe            |



**Appendix 1. Synthesis table from SLR research**

| Reference                        | Method   | Location                        |
|----------------------------------|--|---------------------------------|
| Gopalakrishnan & Guilherme, 2021 | 106 employees of different service organizations who worked remotely during the epidemic.  | U.S.A                           |
| Harrington & Walker, 2002        | Study participants (N = 50) were randomly assigned to a treatment or control group.  | Germany, Czech, Italy, Slovakia |
| Hill & Weiner, 2003              | Perceptions, direct comparisons, and multivariate analyses suggest that the impact of the virtual office is mostly positive for work aspects but somewhat negative for personal/family life aspects. | Germany                         |
| Hill et al. 2003                 | This IBM study compares how three work venues (traditional office, n=4316, virtual office, n=767, and home office, n=441) may influence aspects of work.   | United States                   |
| Jarjabka et al. 2020             | An online survey was conducted.  | Hungary                         |
| Kovaitė et al. 2020              | The paper is based on a systematic review of scientific publications and evaluation by experts.  | Europe                          |
| Krajcsák, 2016                   | Illustrate the impact of labour market trends and future employment characteristics.   | Hungary                         |
| Li et al. 2019                   | This paper presents a comprehensive and critical review.   | UK, Canada, Australia, US       |
| Longo et al. 2017                | Focused on the design and development of a practical solution, called Sophos-MS.   | N/A                             |
| Ludvigson et al. 2020            | This paper attempts to quantify the macroeconomic impacts of costly and deadly disasters in recent US history and translate these estimates into an analysis of the expected impact of Covid.        | U.S.A                           |
| MacEachen et al. 2008            | Qualitative study.   | Canada                          |
| Nicholás et al. 2015             | We report the results of a WFH experiment at Ctrip.  | China                           |
| Nicolás & Toval, 2009            | is intends to study the literature to find methods and techniques dealing with generation, and translation.  | Europe                          |
| O'Brien & Yazdani Aliabadi, 2020 | Literature review  | U.S.A                           |
| Pató, 2022                       | Structured interviews with the surveyed companies.   | Hungary                         |
| Pinzone et al. 2017              | Qualitative insights gained from an on-going collaborative research project.   | Northern Italy                  |
| Sullivan & Lewis, 2001           | This study used 28 in-depth semi-structured interviews:14 with home-based teleworkers and 14 with their co-residents.  | Europe                          |
| Thékes, 2020                     | We sent a survey to approximately 80 institutions.   | Hungary                         |
| Tortorella et al. 2019           | One representative from each of the 147 studied manufacturing companies filled in a survey.  | N/A                             |
| Venczel-Szakó et al. 2021        | This study is based on the results of the first phase of research launched in 2019.  | Hungary                         |
| Zádori et al. 2020               | In this paper, we will attempt to examine whether how the economic and social processes generated by the epidemic  | Europe                          |

Source: based on own database

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