“The impact of home office on employee productivity and work balance”

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Abstract

The implementation of the home office has changed the organization of work not only during the pandemic but also permanently, so it is considered challenging to explore the effects on work processes and the value orientation of employees. This study aims to identify the employees' subjective perceptions of work productivity, as well as the advantages and disadvantages of home office during each wave of the COVID-19 outbreak, by taking into account the views of each generational cohort. The paper analyzes the effects of the home office on employee productivity in Slovak firms and its impacts on private life. Descriptive statistical methods were used to process the data obtained by questionnaire survey, conducted in several phases from September 1, 2020, till August 20, 2022, on a sample of 1167 respondents reached by random selection. The questionnaire was distributed through social network sites and targeted at people who use information and communication technologies, which is a requirement of the home office. The hypothesis was verified using the chi-square test. Based on the survey results, workers who use home offices feel isolated and prefer a combined form of work; they lack social contact, which reflects negatively on their mental health. The combined form of work also significantly impacts the sustainability of work productivity. The study recommends that organizations ensure work-life balance, understanding the particular generations working within the home office.

INTRODUCTION

A home office is a specific type of work not tied to the employer’s workplace but to another arranged work location, most often the employee's residence (home), for the entire working period. The change in social situation in recent years has ensured a growing demand for designated home-based workplaces – whether it is a hybrid working model (a combination of home and office-based work) or a permanent home office. The COVID-19 pandemic, when many countries adopted a ‘stay-at-home’ policy (Irlacher & Koch, 2021; Mishchuk et al., 2023), and now inflation have contributed significantly to the use of home offices, which can also be noticed in the supply of individual jobs. Compared to previous years, there are more opportunities on the labor market with the possibility to work from home. One reason is that employers have started realizing the benefits of home offices for their companies, mainly because they optimize the costs of renting buildings, offices, utilities, etc. On the other hand, employees are beginning to have objections to home offices because of social contact displacement.

A number of unique challenges have been created for employees and employers due to business and industry shutdowns that have been put in place to limit the spread of the virus around the world. When it comes to workplaces around the world, since the COVID-19 pandem-
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ic outbreak, companies and organizations have adopted different types of strategies. While some employees have been required to work from home, whether required by their company policy or by a government decision to impose a nationwide lockdown, other employees have had the option of choosing to work from home or work in the company or a combination of the two options. Many employers are trying to use the COVID-19 experience to the advantage of companies and offer their employees to work partly from home, the so-called hybrid model, where previously they did not offer such an option. Some of the benefits of working from home are a flexible schedule, more comfortable clothing at work, and not having to commute to the office every day. These factors can be seen simultaneously as disadvantages of working in the office. Some disadvantages of working from home include a lack of social interaction, a lack of work-life balance, and a poor home working environment. These factors can simultaneously be perceived as advantages of working in the office.

One of the significant issues in human resource management is the clash of generations on the labor market and their value orientation in terms of work performed. Work values and work preferences differ across generations and national cultures when justifying periodic and local investigations (Silva & Carvalho, 2021; Sulistiobudi & Hutabarat, 2022; Maloni et al., 2019). However, more is needed to learn about the work values of particular generations in Slovakia.

1. LITERATURE REVIEW

Working from home has become a crucial issue of research studies since the COVID-19 outbreak. Many studies focused on recommendations for both employees and employers regarding work-life balance (Oliveira et al., 2020; Hoke et al., 2022; Skýpalová et al., 2022), better work organization (Grmanová & Ivanová, 2021), bigger flexibility in working hours, not overloading workers to better manage family demands (Smite et al., 2023), or providing the digital tools and equipment being necessary to work from home (Holzgreve et al., 2022).

Other studies focus on home office benefits, highlighting the physical activity distribution, work-life balance (Hensher et al., 2023; Beňo & Křížová, 2022; Beňo, 2018), better concentration, fewer distractions, and interruptions, while allowing the employee to take more breaks, and more time to complete work. On the other hand, there were challenges: less physical activity, poor work-life balance, more distractions and interruptions, fewer breaks, poor work environment, and less time to complete work. Expanding home offices has blurred the line between employees’ work, private life, and home. If an employee does not receive support from the organization, it can lead to an inability to balance work and private life (Hensher et al., 2023; Hu et al., 2018; Bai et al., 2016; Brummelhuis & Bakker, 2012).

AbuJarour et al. (2021) researched the productivity of academics during the pandemic, arguing that personal and technology-related factors influence individuals’ attitudes toward home office and productivity. Recommendations from the study were directed to university administrators who make decisions about the working conditions of academics. They advised management to provide academics with access to hardware and software equivalent to that used in their offices and adequate internet access. At the same time, recommendations were also directed for management to be more flexible as academics reported that they needed more time to work at home. They took on additional responsibilities such as learning and using new software during home office and even being supported through training and technical assistance. Finally, they recommended creating virtual support groups focused on peer support and discussion on used practices. Similar findings regarding productivity in higher education are obtained by Staniec et al. (2023) with stress on the necessity for closer attention to the needs of employees and current digitalization trends.

Birimoglu Okuyan and Begen (2022) provide an overview of recommendations for professionals to minimize the adverse effects of home offices during COVID-19. Recommendations are mainly directed at physical and mental well-being: creating a working environment at home that is ergonomically similar to the one at work, such as having
an adjustable work chair and desk. Fan Ng (2010), Holzgreve et al. (2022), and Xu et al. (2022) recommend maintaining health with good sleep, shorter breaks, regular exercise, and a healthy and nutritious diet. Hensher et al. (2023) and Arefin et al. (2020) highlighted the crucial issue of work-life balance, especially for people with children, and recommend that they establish a childcare regime and be able to concentrate and work without interruption. These findings are supported by other researchers focused on gender differences in achieving work-life balance (Blahová et al., 2023; Samoliuk et al., 2022). Apart from the mentioned recommendations, keeping a daily routine already set, including dressing formally and eating breakfast as if going to the office to work, is crucial.

Fadinger and Schymik (2020) focus on the impact of home offices on the economy. They present that a maximum of 42% of jobs in Germany could be done from home. Dingel and Neiman (2020) present a similar figure for the US economy: 37% of jobs. Thus, the sectors with the highest share of jobs that can be done from home are financial and insurance activities, information and communication services, and education. Conversely, the sectors with the lowest proportion of jobs that can be done from home are agriculture, forestry and fishing, accommodation and food services, and construction.

It is inevitable to consider the value orientation of employees in terms of the home office, which may differ significantly regarding the affiliation to particular generations and their needs of life, as well as value orientation, which may also be significantly different within the regions. At the same time, it is also crucial to assess the performance of employees and the impact of work organization on this performance, which appears to be quite a significant research gap within the studies published so far.

The goal of this study is to analyze the home office effects on the productivity of employees in Slovak companies and to assess the subsequent fallouts in their private/personal lives. Thus, the study elaborates on the following hypothesis:

\[
H1: \text{Labor productivity is affected by the period of home office.}
\]

2. METHOD

The paper used descriptive statistical methods to process the data collected by the questionnaire survey, distributed online from September 1, 2020, until August 20, 2022, when 1,167 respondents participated. Subsequently, the hypothesis was set and tested using the chi-square test. The significance level at alpha = 0.05 has been set.

Finally, the results have been compared with findings from other published studies and interviews with several prominent executive managers. The survey was conducted within four phases, as shown in Table 1.

3. RESULTS

According to the survey results, most of the respondents work as rank-and-file workers, which 396 (34%) respondents reported, and as a manager
or director of the company, which was reported by 185 (16%) respondents in the filtered responses. However, not all occupations performed are home office jobs, especially those jobs requiring the employee to be present in person at the workplace during all of his or her working hours.

When asked how the pandemic outbreak affected the income of respondents, more than 41% of respondents (480) reported that their income had decreased as a result of the COVID-19 pandemic, as shown in Figure 1. The population income decreased during the pandemic for several reasons, for example, closed schools, mandatory quarantine, and persons tested COVID-19 positive at the workplace, where the decrease in income was reported to be more than 50% overall. Thus, during the observed period, there was also a drop in income for those employees who were forced to stay at home due to an obstacle on the employer’s side. The implementation of the restriction represented a 20% drop in income. Most of the responses regarding the reduced income were in the first questionnaire, i.e., at the end of the observed period. However, 42% of respondents did not show a decrease in income. This can also be said for more households that did not experience a loss of all or half of their income during the pandemic and home office work. Surprisingly, 4% of respondents reported that their income increased during the pandemic, which was evident in the third phase of the survey; thus, the overall impact of the pandemic on employees was not as fatal as it might have seemed at the beginning of the pandemic.

As illustrated in Table 2, when asked, 709 (61%) respondents reported having experience with home office work only during the COVID-19 pandemic, 318 (27%) reported having worked from home before the pandemic outbreak, and 140 (12%) reported having no experience with home office work so far. Employees had to quickly adapt and become familiar with shared communication platforms via teleconferencing. Thus, the new form of working allowed employees to work together remotely. This meant that several families of employees had to adjust to a new routine, as many activities and responsibilities had to be postponed for some time. Several parents were thus forced to adjust their priorities and merge several professions into one.

Regarding the survey results shown in Figure 2, 18% of respondents indicated in their responses that they still currently work only from home; 10% work from home 3-4 times a week, 14% work

![Figure 1. The way the COVID-19 pandemic outbreak has affected the income of employees](image_url)

<table>
<thead>
<tr>
<th>Table 2. How long have you had experience with home office work?</th>
</tr>
</thead>
<tbody>
<tr>
<td>How long have you had experience with home office work?</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>Only for the duration of the COVID-19 pandemic</td>
</tr>
<tr>
<td>I have been already working from home before the COVID-19 pandemic</td>
</tr>
<tr>
<td>I do not have any experience with working from home</td>
</tr>
</tbody>
</table>
1-2 times a week from home, 24% of respondents work within the home office only sporadically, and 33% do not work from home at all. Thus, as time passed, when arrangements and measures were eased, most employees returned to their original positions in the company. Thus, the new form of work has forced many employees to adjust to a new work and personal life. Several workers were forced to adjust their work priorities and change their previous working habits. Due to the workload, several homework assignments were postponed indefinitely. Respondents identified how they had perceived their work productivity. The longer they work from home, the lower their labor productivity.

During the first wave (questionnaire 1), up to 33% of respondents indicated that their productivity was higher, and 42% indicated that it was the same as when they worked in the office; 25% perceived productivity to be lower when working from home than in the office. For the second wave (questionnaire 2), 25% of respondents indicated that their productivity was higher, but 53% indicated that it was the same as when they worked in the office; 22% perceived productivity to be lower. For the third wave, 24% of respondents indicated that their productivity was higher, 45% indicated that it was the same as when they worked in an office, and 31% perceived productivity to be lower.

Based on the responses received, 24% of the respondents’ work productivity increased when they worked within the home office as compared to working in the office. However, 41% reported that their work productivity remained the same as before they started working within the home office, and 36% reported that their work productivity was lower during the home office than during office work. It was interesting to observe the differences during each wave. It can be concluded that long-term social isolation negatively impacts employees not only their work performance and productivity but also their mental health (Hensher...
et al., 2023; Arefin et al., 2020). As illustrated in Figure 3, up to 33% of respondents showed higher productivity during the first wave, but by the third wave, only 24% of respondents, and by the fourth wave, only 19% of respondents did so.

Conversely, lower productivity was shown by 25% of respondents during the first wave; however, in the questionnaire, it was reported by up to 31% of respondents during the third wave, and by the fourth wave, 44% of respondents. People working from home experienced declining motivation and productivity. Thus, most workers working long-term within the home office are prone to burnout. Here, it can be seen how the pandemic has impacted employees’ motivation to work. What happens is that people try to use willpower to motivate themselves to perform better, but inside, they are already exhausted. Therefore, the condition of individual teams needs to be managed even during home office. However, this situation has lasted very long and is tough for all companies. Companies have been able to adjust their working mechanisms with time, but the biggest problem is associated with the efficiency of the employees. Efficiency is declining mainly due to supervisors’ lack of social contacts and managerial control, which often leads to time and performance management problems.

According to Table 3, in the first wave, i.e., in questionnaire 1, up to 41.7% of respondents perceived their productivity at home office to be the same and 33.3% even higher than when working in the office. In the second wave (questionnaire 2), only 25% of the respondents perceived their productivity to be higher; during the third wave (questionnaire 3), it was 24% of the respondents, and during the fourth wave (questionnaire 4), it was only 19% of the respondents.

The coronavirus pandemic outbreak has shown the flip side of working from home. The home office means the increased demands on employees in terms of self-discipline. In the comfort of home and without the supervision, it is very easy to slip into procrastination. There is also a problem in the division of work and private life after working from home for an extended period. This has been confirmed in surveys; the longer employees worked from home, the more their productivity declined, as shown in Figure 4.

The missing social contacts were perceived by respondents in proportion to the length of the home office. If in the first questionnaire, i.e., during the first pandemic wave, the lack of social contacts was perceived by 51% of the respondents, in the last questionnaire, it was perceived by up to 72%. The advantages the respondents had about the home office include, in particular, the flexibility indicat-

### Table 3. Labor productivity perception

<table>
<thead>
<tr>
<th>Labor productivity perception</th>
<th>First wave</th>
<th>Second wave</th>
<th>Third wave</th>
<th>Fourth wave</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher productivity</td>
<td>33%</td>
<td>25%</td>
<td>24%</td>
<td>19%</td>
</tr>
<tr>
<td>The same productivity</td>
<td>42%</td>
<td>53%</td>
<td>45%</td>
<td>37%</td>
</tr>
<tr>
<td>Lower productivity</td>
<td>25%</td>
<td>22%</td>
<td>31%</td>
<td>44%</td>
</tr>
</tbody>
</table>

Figure 4. Labor productivity perception
ed by 42% of the respondents and the possibility to work from any place (19% of the respondents).

The home office is not a new phenomenon in the world of work, but it has become particularly relevant and significant once again during the pandemic outbreak. In particular, internet connectivity that does not depend on information and location (Boes et al., 2014) leads to an expectation of bigger flexibility for employed people. The flexibility at different levels makes working from home an attractive factor for employees. Similarly, in the survey, respondents reported that flexibility was one of the most prominent benefits of a home office (42% of all responses), while not being necessary to travel to work was also claimed as a benefit (19% of all responses, with more women valuing it – 32% – than men – 24%). As shown in Figure 5, in terms of generations, the highest difference in traveling to work is valued by Generation Z (31%) and Generation Y (32%). In comparison, Generation X does not see it as the most significant advantage (17% of responses).

According to the data, as illustrated in Table 4, it has been calculated the chi^2 = 22.668; in this case, it can be considered 6 degrees of latitude. For the significance level α = 0.05 and df = 4, the critical value χ^2_crit = 12.592. The chi-squared statistic (chi^2) value is bigger than the critical value of the chi-squared statistic (χ^2_crit). Therefore, the hypothesis is accepted. This means that according to data, there is a significant difference between labor productivity and the period of a home office.

Based on the survey results, it can be concluded that working from home suits more employees; however, there are opinion differences within the clash of generations, where younger generations prefer working from home. It was interesting to see the disadvantages of a home office. According to Figure 6, the most common disadvantages regarding home office are the difficulty of staying motivated (25% of responses), the tendency to work too much from home or to be available online all the time (19%), as well as the issue in terms of work versus personal life (18%). The tendency to work too much and to be available online all the time is more stressed among men (27%) than women (16%), and feelings of loneliness and isolation are reported by more women (16%) than men (8%). Regarding generations, the most highlighted difference in responses is in the ability to stay motivated/productive, reported by Generation Z at 31%.

The employee inevitably separates his/her private life from his/her working life. Within the home office, the work-life balance (higher labor productivity) is often neglected. Generation Z (30%) and Generation Y (26%) are more likely to have a work-life balance than Generation X (15%). The lower productivity values are mainly reported by Generation Z (31%), while Generation X (20%) and Generation Y (17%) have higher productivity. The chi-squared statistic (chi^2) value is bigger than the critical value of the chi-squared statistic (χ^2_crit). Therefore, the hypothesis is accepted. This means that according to data, there is a significant difference between labor productivity and the period of a home office.

### Table 4. Labor productivity perceptions during the particular waves

<table>
<thead>
<tr>
<th>Labor productivity perceptions</th>
<th>First wave</th>
<th>Second wave</th>
<th>Third wave</th>
<th>Fourth wave</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher productivity</td>
<td>89</td>
<td>36</td>
<td>57</td>
<td>98</td>
<td>280</td>
</tr>
<tr>
<td>The same productivity</td>
<td>113</td>
<td>76</td>
<td>106</td>
<td>191</td>
<td>487</td>
</tr>
<tr>
<td>Lower productivity</td>
<td>68</td>
<td>32</td>
<td>73</td>
<td>227</td>
<td>400</td>
</tr>
<tr>
<td>Total</td>
<td>270</td>
<td>144</td>
<td>236</td>
<td>517</td>
<td>1167</td>
</tr>
</tbody>
</table>

### Figure 5. Home office benefits from the perspective of generations

- **Flexibility (work scheduling depends only on me)**
  - Generation X: 29%
  - Generation Y: 30%
  - Generation Z: 32%

- **I don’t have to travel, commute to work**
  - Generation X: 21%
  - Generation Y: 19%
  - Generation Z: 17%

- **I can work from anywhere**
  - Generation X: 18%
  - Generation Y: 5%
  - Generation Z: 15%

- **Higher labor productivity**
  - Generation X: 15%
  - Generation Y: 12%
  - Generation Z: 17%

- **Better work life balance**
  - Generation X: 26%
  - Generation Y: 29%
  - Generation Z: 30%
office, there is a high risk that the two areas can merge into one, disrupting the psychological and mental health of individuals. The home office also demands a high work engagement; therefore, employees feel a considerable pressure and stigma of not working enough at home, which can result in unpaid overtime and additional stress for employees; that is why younger generations, in particular, may change jobs more frequently.

4. DISCUSSION

The widespread use of home office options has brought many surprising findings, especially in conservative countries such as Slovakia. Before its mass introduction, the use of this type of work was considered a bonus by both employers and employees. After its forced mass implementation, employers have found out that it brings them several advantages, such as saving costs on administrative space, better and more operative communication with a client, a bonus for the employer can also be the social isolation of employees resulting in conflicts elimination at the workplace and almost zero resistance in new solutions adoption by employees.

Regarding flexible employment, there is a high preference among younger generations, whether for home office work or their preference regarding the 4-day working week implementation. On the contrary, the older generation puts more emphasis on face-to-face interpersonal interaction. The potential problem here, then, is the impact that the increasing employment flexible forms implementation will have on the preferences of each generation in terms of choosing their jobs and which forms of employment will become attractive to those generations when it comes to the selection of jobs they wish to apply for. The same data are also reported by Enache and Puscas (n.d.), in which around 63% of managers and 74% of workers rate teleworking during the pandemic outbreak favorably, and the majority of them would like to continue working like this in the future. According to the Eurofound-ETF (2022) survey of more than 85,000 respondents in the EU-27, working from home is more common among women than men (14% vs. 10%). In terms of age groups, people aged 60 and over will always work from home (only 16%).

The constantly resonating issue of salary may be another problem. For the older generation, this is a significant motivating factor that impacts the final decision on where to be employed. However, younger generations tend to be more inclined toward aspects such as mental well-being or culture issues, even regarding salary. However, this does not mean that the salary issue becomes completely irrelevant – the question to be answered here is what impact the salary issue will have on the representatives

![Figure 6. Home office drawbacks from the perspective of generations](image-url)
of different generations in the form of wages. Similar results are presented in PwC research (2021), which was conducted on a sample of more than 50 thousand respondents in 11 countries. The results show that up to 95% of respondents demonstrated working time flexibility among the top five most essential criteria out of 55. Grafton’s Benefits Survey (2023) also showed that for younger generation representatives, the salary is no longer a fundamental issue, which was the priority of their predecessors, nor efficiency or profit for employers. Far too much more important to them is a sense of purpose and meaningfulness.

Last but not least, the paper discusses the workplace’s intergenerational diversity issue. This is a workplace where, for example, there is multi-ethnic, cultural, racial, or other diversity when building on each employee’s unique contribution depending on the specificities that their individuality brings. Particularly abroad, there is a constant drive toward an increasingly diverse work environment, where this diversity is seen as one of the critical issues. However, the question is whether such a working environment will be attractive and therefore preferred by the different generations or, on the contrary, an environment in which they could not see their work performance regularly. At the same time, this also raises the issue of equality, where it talks about a workplace that welcomes everyone, regardless of nationality, race, age, or sexual orientation.

It is recommended that companies in Slovakia communicate cultural values and expectations – both verbally and non-verbally. Technology-oriented values are inherently and fundamentally embedded in corporate cultures being more technology-based. Corporate expectations, especially those focused on technology usage and work-life balance, should be communicated beforehand and repeated frequently. Next, organizations must ensure work-life balance or reciprocity principles for newcomers by implementing an “acceptable use” policy. This method explicitly sets guidelines on appropriate and inappropriate use of organizational technology and is a valuable option that employees can refer to when necessary. Another option is to get involved in “reciprocity discourse,” where organizations offer personal flexibility in exchange for employees being flexible with their work schedules. Direct communication is paramount in whichever approach is used to express cultural values and expectations.

CONCLUSION

This study aimed to identify employees’ subjective perceptions of work productivity, as well as the advantages and disadvantages of the home office during each wave of the outbreak of the COVID-19 pandemic, taking into account the views of each generational cohort. Based on the research findings, it has been confirmed that employees find it problematic to maintain their productivity and motivation for a job well done from the comfort of their homes. Thus, workers are better motivated and more productive if they are at their workplace. A larger number of respondents also reported that they feel tired and even often very lonely while doing home office work, which ultimately makes them fall into lethargy and depression. Another revealed disadvantage within home office work was the difficulty separating work and private/personal life and the tendency to work too much and be online all the time.

In terms of the most emphasized advantages, the analysis showed that respondents appreciated the flexibility of the home office and not having to commute to work every day. Based on that, companies are recommended to communicate cultural values and expectations verbally and non-verbally. Technology-driven values are inherently and fundamentally embedded in the cultures of more technology-driven corporations. Organizational expectations, especially those centered on the use of technology and work-life balance, should be communicated upfront and repeated frequently. The survey results lead to recommendations that organizations should ensure work-life balance or implement reciprocity principles for newcomers through an “acceptable usage” policy. This is a way to state guidelines on appropriate and inappropriate use of organizational technology, and it is a useful op-
tion that employees can refer to when needed. The alternative choice is to be engaged in “reciprocity discourse,” where organizations offer personal flexibility in exchange for employees being flexible with their work schedules. Direct communication is inevitable and crucial regardless of the approach used to express cultural values and expectations. Organizations that can flexibly adapt and change the working conditions for employees will have a chance to survive and overcome the current changes in today’s global economy.

AUTHOR CONTRIBUTIONS

Conceptualization: Adriana Grenčíková, Jana Španková.
Data curation: Adriana Grenčíková, Jana Španková.
Formal analysis: Adriana Grenčíková, Jana Španková, Marcel Kordoš.
Funding acquisition: Adriana Grenčíková, Jana Španková, Marcel Kordoš.
Investigation: Adriana Grenčíková, Jana Španková, Marcel Kordoš.
Methodology: Adriana Grenčíková, Marcel Kordoš.
Project administration: Adriana Grenčíková, Jana Španková.
Resources: Adriana Grenčíková, Jana Španková.
Supervision: Adriana Grenčíková, Jana Španková, Marcel Kordoš.
Validation: Adriana Grenčíková, Jana Španková, Marcel Kordoš.
Visualization: Jana Španková.
Writing – original draft: Adriana Grenčíková, Jana Španková.
Writing – review & editing: Adriana Grenčíková, Jana Španková, Marcel Kordoš.

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