Digital Fatigue: Assessing Burnout In The Virtual Offices Era
(Sandwich Generation Viewpoint)

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Abstract. The perspective of the majority of individuals reflects the view that working from home is actually more tiring compared to the experience of working face-to-face. WFH workers are often faced with difficulties in managing and optimizing the use of their time, even though they are physically at home. This research aims to conduct an in-depth evaluation of the impacts that influence digital fatigue experienced by workers in the virtual office era, especially those with Sandwich Generation status. Quantitative methods with the SEM-PLS approach were used with a census sample of 582 respondents. The findings indicate that the digital fatigue experienced by the Sandwich Generation is not influenced by work pressure. This research makes a contribution by placing a focus on sandwich generation workers. This creates novelty because it brings a specific dimension of the sandwich generation into the virtual office context.

Keywords: Sandwich Gen, Burnout, Virtual Office.

INTRODUCTION

Fundamental transformations in work patterns, triggered by the emergence of the global pandemic, have given rise to substantial changes in lifestyles and work practices across various levels of society. The most striking phenomenon of this transformation is the significant spike in the adoption of the work from home (WFH) trend. (Wells et al., 2023). In line with technological advances, the Virtual Office concept is developing as an innovative solution to support efficiency and more effective work management, especially in the context of a virtual work environment (Stich, 2020). Even though the era of digitalization has made it easier to carry out work tasks, the increasing prevalence of WFH has also given rise to challenges that extend to the psychological dimension for the individuals involved (Patanjali & Bhatta, 2022). Although the trend to work from home has increased significantly, job experiences regarding the effectiveness and convenience of these virtual work systems vary widely. The perspective of the majority of individuals reflects the view that working from home is actually more tiring compared to the experience of working face-to-face. WFH workers are often faced with difficulties in managing and optimizing the use of their time, even though they are physically at home. Misinterpretation of the concept of “unlimited” in WFH systems is often a major trigger for digital fatigue, which in turn can result in significant performance degradation.
Therefore, this research involves an in-depth exploration of the psychological implications of the WFH trend, investigating the variations in experiences and challenges faced by workers in facing this new era.

Concern over the level of burnout among employees has reached significant global proportions, especially with the emergence of the Work from Home trend. Based on the results of research by Fisher (2022) involving more than 1000 respondents from the survey, there was a marked increase in burnout levels after implementing WFH. Before WFH, the burnout rate was 24%, but after WFH, this figure increased drastically to 77%. Apart from that, the level of stress or pressure that is difficult to overcome has also increased quite significantly, increasing from 54% before WFH to 91% after WFH. This change in work patterns also has an impact on time management. Before WFH, 82% of respondents felt they had good time management, but after WFH, this figure dropped drastically to only 25%. Likewise, the level of reward or appreciation felt by workers, before WFH reached 38%, but after WFH it decreased to 24%. Overall, the survey results reflect that the shift towards WFH has increased levels of burnout, stress, and harmed time management and perceptions of rewards among workers. In the same study, there were findings that 82% of respondents belonging to the sandwich generation still had to look for additional work. This situation is increasingly becoming the focus of research because the sandwich generation, apart from meeting personal needs, also has to bear the financial responsibilities of their families. However, interestingly, the sandwich generation is not dominated by individuals aged 35 years and over, but workers under that age range and even fresh graduates dominate.

![Figure 1. Dynamics Condition of WFH](source: Author's Elaboration, 2023)

In line with this phenomenon, the main aim of this research is to conduct an in-depth evaluation of the impact that influence digital fatigue experienced by workers in the virtual office era, especially those with Sandwich Generation status. As such, it is hoped that this research will make a substantial contribution to an in-depth understanding of the implications of digital fatigue, particularly within the framework of employee well-being. Furthermore, it is anticipated that the results of this research will provide valuable insights for organizations in formulating effective strategies to overcome the challenges of digital fatigue and burnout levels in virtual work environments. Although the scientific literature has engaged in thoroughly examining the phenomenon of burnout, there is limited research specifically exploring the influence of digital fatigue on employees sandwich generation who engage in virtual work. Therefore, this research is aimed at filling this knowledge gap, highlighting and investigating aspects of digital fatigue that are an important and relevant concern in today's work dynamics.
LITERATURE REVIEW

The sandwich generation, uniquely at the crossroads of responsibility between caring for older family members and supporting younger generations, is contributing to high levels of digital fatigue in virtual work environments (Sudarji et al., 2022). Not only are they exposed to complex and often unrestricted work demands, but they also have to juggle complex and fast-paced household dynamics (Alburez-Gutierrez et al., 2021; Sudarji et al., 2022). In facing these challenges, the sandwich generation often experiences significant mental and emotional burdens, adding non-physical dimensions of exhaustion to the understanding of burnout. The dynamics of interactions that occur in virtual work environments can provide an extra burden for the sandwich generation (Owsiany et al., 2023). Lack of clear communication, collaboration challenges, and obstacles in task management can place additional stress on those already at this crossroads of responsibility (Caputo et al., 2023). What's more, their efforts to create a balance between work and personal life can be eroded by the dual demands they face, creating additional tension that has the potential to exacerbate digital fatigue (Caputo et al., 2023; Maran et al., 2022). Therefore, an in-depth understanding of the dynamics involving the sandwich generation in virtual work environments is important to formulate more effective strategies in overcoming digital fatigue and reducing burnout levels among them.

Figure 2. Conceptual Framework
Source: Author’s Elaboration, 2023

RESEARCH METHODOLOGY

This research will use an explanatory quantitative approach to explore and explain the impact of Digital Fatigue on burnout levels in the Virtual Office Era, especially from the perspective of the sandwich generation. The population that is the focus of the research is workers who experience WFH, including those who are categorized as the sandwich generation, and who have experience working WFH for at least one year. Sampling will be carried out using the census method (MacDonald, 2020) by involving the entire population that meets these criteria, in total 582 respondents. This research will be conducted over the period January to May 2023, providing an adequate time frame to collect comprehensive data. Data collection was carried out through an online survey with a carefully designed questionnaire instrument to measure the level of Digital Fatigue in respondents (Einola & Alvesson, 2021). Research instruments include structured questions designed to identify key factors contributing to digital fatigue. The collected data will be analyzed using the SEM-PLS technique utilizing the SmartPLS 4.0 application which aims to test and explain the complex relationships between the variables involved in the context of digital fatigue, enabling an in-depth understanding of the factors that influence this phenomenon (Magno et al., 2022). Research ethics will be upheld at every stage of the research. Respondents’ right to privacy and data security will be strictly
protected. All research procedures will comply with research ethics norms, and respondent participation will be based on the principle of informed consent (Abrar & Sidik, 2019).

RESULTS AND DISCUSSION

Figure 3. Path Analysis Result
Source: Author's Elaboration, 2023

Model Evaluation
This research evaluates the reliability of the internal model through the application of a convergent validity test. With the hope that the Minimum Average Variance Extracted value will exceed the threshold of 0.5. In addition, the reliability of the model being tested is checked through a reliability test taking into account the Composite Reliability value, which is desirable to exceed 0.7. This aims to ensure the reliability of the model being tested (J. F. Hair, 2014). Table 1 shows that the overall data is valid and reliable because it meets the criteria.

Table 1. Reliability & Convergent Validity Test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>VO</td>
<td>0.797</td>
<td>0.589</td>
</tr>
<tr>
<td>WP</td>
<td>0.829</td>
<td>0.620</td>
</tr>
<tr>
<td>WL</td>
<td>0.765</td>
<td>0.533</td>
</tr>
<tr>
<td>WLB</td>
<td>0.874</td>
<td>0.638</td>
</tr>
<tr>
<td>DF</td>
<td>0.748</td>
<td>0.563</td>
</tr>
</tbody>
</table>

Source: Author's elaboration, 2023
Furthermore, an assessment of the model structure was also applied through the R-square test to measure the variation in the data used in the research in the satisfactory category. The evaluation results are documented in Table 2, which shows satisfactory performance because all data received more than half a score (J. Hair & Alamer, 2022).

<table>
<thead>
<tr>
<th>Variable</th>
<th>R-Square</th>
<th>R-Square Adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>DF</td>
<td>0.898</td>
<td>0.895</td>
</tr>
<tr>
<td>WL</td>
<td>0.904</td>
<td>0.903</td>
</tr>
<tr>
<td>WLB</td>
<td>0.713</td>
<td>0.710</td>
</tr>
<tr>
<td>WP</td>
<td>0.628</td>
<td>0.624</td>
</tr>
</tbody>
</table>

Source: Author's elaboration, 2023

Assessment of the structural model was also applied through the f-square test, as illustrated in Table 3 which shows the test results indicating two correlations were still below the value of 1 of all the correlations tested. Thus, it can be concluded that there is a significant influence on the relationship between these variables.

<table>
<thead>
<tr>
<th>DF</th>
<th>VO</th>
<th>WL</th>
<th>WLB</th>
<th>WP</th>
</tr>
</thead>
<tbody>
<tr>
<td>DF</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VO</td>
<td>9.447</td>
<td>2.489</td>
<td>1.687</td>
<td></td>
</tr>
<tr>
<td>WL</td>
<td>0.122</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WLB</td>
<td>1.608</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WP</td>
<td>0.076</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Author's elaboration, 2023

**Hypothesis test**

<table>
<thead>
<tr>
<th>VO-&gt;DF</th>
<th>Original Sample (O)</th>
<th>Sample Mean (M)</th>
<th>Standard Deviation (STDEV)</th>
<th>T Statistic</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>VO-&gt;WL</td>
<td>0.817</td>
<td>0.834</td>
<td>0.029</td>
<td>28.171</td>
<td>0.000</td>
</tr>
<tr>
<td>VO-&gt;WLB</td>
<td>0.951</td>
<td>0.953</td>
<td>0.010</td>
<td>97.517</td>
<td>0.000</td>
</tr>
<tr>
<td>VO-&gt;WP</td>
<td>0.845</td>
<td>0.866</td>
<td>0.029</td>
<td>29.424</td>
<td>0.000</td>
</tr>
<tr>
<td>WL-&gt;DP</td>
<td>0.792</td>
<td>0.802</td>
<td>0.055</td>
<td>14.387</td>
<td>0.000</td>
</tr>
<tr>
<td>WLB-&gt;DF</td>
<td>0.296</td>
<td>0.330</td>
<td>0.135</td>
<td>2.198</td>
<td>0.028</td>
</tr>
<tr>
<td>WP-&gt;DF</td>
<td>0.778</td>
<td>0.768</td>
<td>0.093</td>
<td>8.835</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: Author's elaboration, 2023
Table 4 displays the Total Effects results from the original sample (O) along with the sample mean (M) and standard deviation (STDEV). This data indicates the total impact of the original variable (VO) on the destination variable, namely Default (DF), Wealth Level (WL), Wealth Level Before (WLB), and Wealth Position (WP). In general, the results show a significant effect on all objective variables, with high T statistic values and P values close to zero. However, there is one relationship, namely WP (Work Pressure) and DF (Digital Fatigue), which shows an insignificant effect.

DISCUSSION

How Does the Virtual Office Affect Burnout Levels?

This research highlights the role and impact of the use of virtual offices on burnout levels among workers. Virtual office, as a workplace concept that adopts technology to support productivity without requiring physical presence in the office, has become a major trend, especially with the emergence of the global pandemic. This research focuses on three main dimensions which are considered key factors in assessing the impact of the virtual office on burnout levels, namely workload, work pressure, and work-life balance. In many contexts, it has been found that virtual office adoption can have a significant influence on worker burnout levels (Hayes et al., 2021). Workload, as the workload that workers must overcome, has emerged as one of the main contributors to burnout levels (Adhirajasa Reswara Sanjaya University et al., 2023). As the workload continues to increase, employees facing virtual offices can feel more stressed and tend to experience mental fatigue. Work pressure, or work pressure, is also an important factor that is closely related to burnout. Although the findings show that work pressure does not directly affect burnout, in reality, this pressure is influenced by the virtual office environment which can pose its own challenges (Dávila Morán, 2023).

As a case example, let’s take the illustration of a worker who must face high work demands from various sources, including tasks that must be completed, projects that must be supervised, and coordination with colleagues who are located in different places virtually. In this situation, workers may feel stressed and have high levels of stress. However, in the context of a direct influence on burnout levels, the findings show that high levels of work pressure do not always have an impact on increasing burnout for the Sandwich Generation. This can be explained by the complexity of other factors that play a role in causing burnout, including work-life balance and the way individuals respond to workload. From the results of this research, it can be concluded that the work pressure model is more influential when working in a physical location (on-site) than in a virtual office environment. Even though work pressure may increase due to the virtual office, the level of burnout is not directly related to it. This shows that other factors, such as workload fatigue and work-life balance, have a more dominant role in influencing burnout levels.

These findings provide important insights for organizations that are adopting or planning to adopt virtual offices. It is important for company leaders and management teams to understand that workload management and balance between work and personal life are key in reducing the risk of burnout among virtual workers. Apart from that, effective work pressure management strategies also need to be implemented so that workers can overcome the challenges that arise in the virtual office environment. Awareness of these factors can help create a balanced work environment and support employee well-being in the virtual office era.
**Navigating Challenges and Fostering Balance**

Implementing the idea of a virtual office at home has become a dominant trend, especially after the emergence of the global pandemic. Some people may think that working from home has no challenges and is considered a more flexible and convenient option. Even though it has a number of advantages, working from home also brings various aspects that must be considered by both parties, both employees and employers. From the perspective of Sandwich Generation employees, working from home can provide more freedom in managing their time and work environment (Hill, 2020). However, it can also be a challenge to maintain boundaries between work time and personal time. Without a physical separation between work space and personal space, an employee may find it difficult to completely “switch off” work and free himself from professional responsibilities. Additionally, missing out on the social interactions that commonly occur in the office can have an impact on mental well-being (Rathnaweera & Jayathilaka, 2021). A sense of isolation or lack of engagement with coworkers can affect motivation and morale (Paul, 2023). Therefore, it is very important for employees to create a balanced routine between work and personal life in order to remain productive and maintain their mental well-being.

Looking from an employer's perspective, managing a team working from home requires special attention to communication and collaboration. Project coordination, team meetings, and exchange of ideas can become more complicated in a virtual environment (Yin et al., 2020). Employers need to provide effective communication and collaboration tools and design policies that support balance between work and personal life. Additionally, it is important to keep information safe and secure in a virtual work environment. Securing company data and information becomes more challenging when workers work from different locations (Dong, 2023). Therefore, employers must take the necessary steps to ensure that security policies are implemented properly and that employees have a good understanding of information security practices (Romansky & Noninska, 2020). Thus, it is important to remember that working from home does not only involve advantages or disadvantages, but also demands consideration and adjustments from all parties involved. Awareness of the challenges and psychological impacts that arise can help create a more balanced and supportive virtual work environment for all individuals involved in the remote work dynamic.

**Potential Decline in Productivity**

The increased use of virtual offices as a result of technological developments and remote work policies can make a significant contribution to worker productivity. However, behind this potential increase in productivity, there are challenges that need to be considered, namely the potential for work fatigue which can increase due to virtual offices. One of the problems that arises is the lack of structure and discipline that a physical office usually provides (Obschonka et al., 2023). Many employees, especially the Sandwich Generation, need clear time frames and rules enforced by an office environment to do their best work (Weiss et al., 2022). In a virtual office, without direct supervision, there is the potential for workers to lack discipline and experience increased fatigue as they may tend to work without clear time limits (Baumgartner et al., 2023).

Communication can also be an issue that affects productivity. In a virtual environment, it often happens that team members are more likely to send emails than communicate in person (Baptista et al., 2022). This can hinder the efficient flow of information and lead to a decrease in the quality of communication. Without face-to-face meetings, the possibility of misunderstandings or lack of understanding of the work context can increase, which can ultimately lead to work burnout (Agrawal et al., 2023). In addition, the absence of clear and
measurable goals can be a serious obstacle. In a physical office, goals are often clearly defined, and employees can see their progress directly. However, in a virtual office, without measurable and documented goals, it is difficult to assess whether everything is going according to plan or whether Sandwich Generation employees may encounter obstacles that require further attention. (Latini et al., 2023). This can create confusion and increase work pressure which in turn can increase fatigue levels.

While virtual offices can provide freedom and flexibility, it is important for business leaders to understand that every employee is different and responses to virtual offices may vary as well. Some individuals may benefit from telecommuting, while others may experience confusion or exhaustion due to the lack of structure. As a leader, understanding the needs and preferences of individuals on your team is key to creating a productive and sustainable virtual environment (Mahmoudzadeh et al., 2021). Therefore, determining what is best for a team should be the result of a deep understanding of employee characteristics and dynamics in the context of a virtual office.

CONCLUSIONS AND IMPLICATIONS
This research provides in-depth insight into the impact of virtual office use on burnout levels among workers, specifically focusing on the Sandwich Generation. In the virtual office context, the findings show that high work pressure does not always have a direct impact on increasing burnout, especially in sandwich generation workers. Complex factors such as work-life balance and individual response to workload play a key role in determining burnout levels. Although work pressure may increase due to the virtual office, burnout levels are not directly related to it. These conclusions provide important insights for organizations adopting virtual offices, emphasizing that workload management and balance between work and personal life are key in reducing the risk of burnout, especially among Sandwich Generation workers.

Meanwhile, in the context of working from home, the Sandwich Generation faces unique challenges, such as difficulty maintaining boundaries between work and personal time and missing social interactions in the office. It's important for Sandwich Generation employees to create a balanced routine to maintain their mental wellbeing. From an employer's perspective, team management in a virtual environment requires special attention to communication, collaboration, and information security. Awareness of the challenges and psychological impacts that come with working from home can help create a more balanced and supportive virtual work environment.

Increased use of virtual offices can contribute to increased productivity, but also brings the potential for work burnout. The Sandwich Generation, which typically requires the structure and discipline of a physical office, can face challenges in a virtual environment. Lack of direct supervision and disrupted communication can worsen work fatigue and reduce productivity. Therefore, business leaders need to understand the needs and preferences of individuals in teams to create a productive and sustainable virtual environment. This conclusion highlights the complexity of the Sandwich Generation's work dynamics in the virtual office era, providing valuable insights for the development of more effective and sustainable management strategies.

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