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# Cooking a telework theory with causal recipes: Explaining telework success with ICT, work and family related stress

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## Abstract

Employees want to be able to telework and organisations want to provide the ideal environment to make it a success story. While some teleworkers experience telework success, that is, are satisfied and perform well, others do not. To understand the drivers of successful and unsuccessful telework, we used a mixed methods approach, taking a stress-theoretic and configurational perspective. In Study 1, we conducted a quantitative analysis of data collected in a survey of 375 teleworkers to identify configurations of information and communication technology (ICT), work and family related challenge and hindrance stressors that lead to high and low telework success. In Study 2, we analysed qualitative data collected in interviews with 52 teleworkers to shed light on the interplay among ICT, work and family related challenge and hindrance stressors in the configurations that lead to high and low telework success. We contribute to telework research by showing that high and low telework success results from configurations of ICT, work and family related challenge and hindrance stressors. We extend the literature by showing that teleworkers benefit from challenge stressors only when they do not experience hindrance stressors. Methodologically, we provide a

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blueprint for an innovative approach using deductive fsQCA to refine, extend and delimit theory.

#### KEYWORDS

fuzzy set qualitative comparative analysis (fsQCA), performance, satisfaction, stress, telework, virtual work

## 1 | INTRODUCTION

Telework has become an integral part of many workers' lives. In 2023, more than 40% of employees in the United States worked remotely for at least 20% of their working hours (Haan, 2023). Some teleworkers express satisfaction with working from home and perform well (Spiggle, 2020), while others are less satisfied and perform less well at home (Ratho, 2020). To help organisations implement effective telework arrangements, we carve out what makes teleworkers successful.

Telework success, that is, teleworkers' satisfaction and performance (Belanger et al., 2001), is shaped by three aspects: the information and communication technology (ICT) used for telework (Carillo et al., 2021), the work itself (Shockley et al., 2021), and the families (Shi et al., 2023). While many theoretical lenses have been used to explain telework success, their core explanations draw attention to the stressful demands related to those aspects, known as stressors (see Appendix A; Table A1). For instance, teleworkers may use ICT to work in novel ways (i.e., an ICT related stressor) (Belanger et al., 2001), work under time pressure (i.e., a work related stressor) (Tarafdar & Saunders, 2022), or experience work family conflict (i.e., a family related stressor) (Gajendran & Harrison, 2007). These stressors can be beneficial and increase telework success (e.g., using ICT in novel ways) or harmful and decrease telework success (e.g., work family conflict).

These findings are consistent with the stress literature, which explains work related outcomes based on stressors that provide employees with opportunities for personal growth, that is, *challenge stressors*, and stressors that limit their personal growth, that is, *hindrance stressors* (Lepine et al., 2016). While challenge and hindrance stressors have been linked to various work related outcomes (see Appendix A; Table A3), such as telework success, the findings on how challenge stressors influence work outcomes are mixed. For example, some studies find that employees benefit from work related challenge stressors, such that they are more satisfied and perform better (Lu et al., 2016; Sessions et al., 2020), while other studies suggest that work related challenge stressors may increase exhaustion and decrease job performance (Rosen et al., 2020; Zhang et al., 2014). These inconsistent findings suggest the need to advance theory to explain the complex relationship between challenge and hindrance stressors and work related outcomes, such as telework success.

Since teleworkers work at the intersection of their work and family lives using ICT (Carillo et al., 2021), they experience combinations of challenge and hindrance stressors related to ICT used, their work and their families. This suggests that distinct, isolated challenge stressors that teleworkers experience from one source of stress, for example, work related challenge stressors, have limited explanatory power for their telework success. While recent literature illustrates interdependencies between hindrance stressors from one specific stress source (Pflügner et al., Forthcoming), conceptual work suggests considering an interplay among challenge and hindrance stressors from different stress sources (Lepine et al., 2007). In line with this argument, we propose that different combinations of and the interplay among ICT, work and family related challenge and hindrance stressors, that is, configurations, explain telework success, such that the same challenge stressors can exert opposite effects on telework success depending on the interaction with other stressors.

Extant literature relies primarily on regression methods based on linear assumptions to demonstrate that the influence of specific challenge stressors is either positive or negative (see Appendix A; Table A3). To reconcile inconsistent findings, we propose using configurational logic. We suggest a paradigm shift toward understanding work

related outcomes such as telework success as a matter of navigating configurations of interacting challenge and hindrance stressors from different stress sources, asking the following research question:

**What configurations of ICT, work and family related challenge and hindrance stressors lead to high or low telework success?**

To answer this question, we conducted a mixed methods investigation. We began by proposing causal recipes, which are theoretical statements describing plausible configurations of conditions (Park, Fiss, & El Sawy, 2020), that describe how configurations of ICT, work and family related challenge and hindrance stressors lead to high and low telework success. In Study 1, we empirically tested these causal recipes by conducting a deductive fuzzy set qualitative comparative analysis (dfsQCA) of data collected from 375 teleworkers. Our findings support the causal recipes by revealing two configurations of ICT, work and family related challenge and hindrance stressors that lead to high telework success and two configurations that lead to low telework success. In Study 2, we adopted a qualitative research design, using semi-structured interviews with 52 teleworkers to extend these findings by identifying illustrative ICT, work and family related challenge and hindrance stressors and by shedding light on how they interplay in the configurations.

We contribute to telework research by crafting explanations of how ICT, work and family related challenge and hindrance stressors interact with each other to lead to high and low telework success. Specifically, we show that teleworkers benefit from challenge stressors only when they do not simultaneously experience hindrance stressors. We highlight the role of family related stress in telework by identifying how family related challenge and hindrance stressors influence telework success. From a methodological perspective, we provide a proof of concept for using dfsQCA to test theory in information systems (IS) research and illustrate how to refine, extend and delimit theory by comparing proposed causal recipes with empirically identified configurations.

This paper is organised as follows. After reviewing existing telework research, we introduce the challenge-hindrance stressor framework as the theoretical lens of this study, describe how we use it in our configurational perspective on telework success and propose causal recipes for high and low telework success. We then present our mixed methods approach. We describe the approach and results of our quantitative analysis (Study 1) and compare the proposed causal recipes with the identified configurations. We then describe the approach and results of our qualitative study (Study 2) and draw meta-inferences between the studies. Finally, we discuss our findings, implications and limitations, and suggest avenues for future research.

## 2 | THEORETICAL BACKGROUND

We summarise existing research on telework success and introduce the challenge-hindrance stressor framework. We then adopt a configurational and stress theoretic perspective on telework success and propose causal recipes for high and low telework success 'a priori'.

### 2.1 | Related research on telework

Telework, also known as virtual work or telecommuting, describes working remotely, away from the traditional office, from a remote location, such as a home office (Belanger et al., 2001; Wang & Haggerty, 2011). Teleworkers often use ICT to work and communicate and have little or no physical face-to-face interaction with clients, supervisors, subordinates, or colleagues while teleworking (Kirk & Belovics, 2006).

The drivers of teleworkers' satisfaction and performance, i.e., their telework success (Belanger et al., 2001), have been extensively studied, examining how the ICT used for telework (van der Meulen et al., 2019), the work itself (Shockley et al., 2021), and teleworkers' families (Gajendran & Harrison, 2007) drive telework success. Although the

theoretical underpinnings vary (Carillo et al., 2021; Chong et al., 2020), most explanations of telework success draw attention to the stressful demands teleworkers face related to ICT (i.e., ICT related stressors), work (i.e., work related stressors), and family (i.e., family related stressors). The following is an overview of existing research on telework success that focuses on such stressors (see Appendix A; Table A1).

Research into ICT related stressors shows that teleworkers have greater telework success when they use advanced and easy-to-use ICT (Belanger et al., 2001; Carillo et al., 2021) which allows them to better cope with job requirements and increases occupational well-being (Tarafdar & Saunders, 2022). Extensive use of ICT can reduce satisfaction and performance, but high ICT quality reduces this negative effect (Kuruzovich et al., 2021). While some studies suggest that the use of asynchronous ICT enabled communication increases exhaustion and leads to less work engagement (Gajendran et al., 2022), others find that teleworkers benefit from it (van der Meulen et al., 2019).

Research into work related stressors shows that teleworkers experience greater job satisfaction and report higher performance when they perceive a high degree of work autonomy and can manage communication expectations (Carillo et al., 2021; Gajendran & Harrison, 2007; Shockley et al., 2021). Similarly, social interactions with supervisors increase teleworkers' productivity (Neufeld & Fang, 2005). In contrast, when teleworkers are required to work under time pressure (Tarafdar & Saunders, 2022), they are more likely to engage in counterproductive work behaviours (Chong et al., 2020) and reduce knowledge sharing, resulting in lower satisfaction and performance (van der Meulen et al., 2019).

Research also indicates that family related stressors play an important role in telework success, suggesting that social interactions with one's family increase productivity (Neufeld et al., 2007). Teleworkers have higher job satisfaction and better performance when they do not experience work family conflict (Gajendran & Harrison, 2007), which is consistent with the suggestion that stressful family social ties can negatively affect teleworkers, for example, by causing them to avoid their families (Shao et al., 2021). Supporting the argument that telework can create tensions between teleworkers and their families, the broader telework literature suggests that telework can foster work family conflict (Duxbury et al., 1992; Golden et al., 2006).

Our review of the telework success literature highlights that different stressors related to ICT, work and family, which we refer to as stress sources, positively or negatively influence telework success. As such, the telework success literature aligns with recent IS stress research, which confirms that different stressors positively or negatively influence employees (Califf et al., 2020). To illustrate this alignment, we use the challenge-hindrane stressor framework as a theoretical lens (Lepine et al., 2005) and probe whether and how positive or negative ICT, work and family related stressors influence telework success.

## 2.2 | Challenge-hindrane stressor framework

Stress is a transactional process that occurs when employees perceive demands that exceed their available resources (Lazarus & Folkman, 1984). According to the challenge-hindrane stressor framework, employees perceive stressful demands, or stressors, as either challenging or hindering (Lepine et al., 2005). *Challenge stressors* are demands that provide employees with the opportunity to learn and achieve to grow personally, while *hindrance stressors* are demands that have the potential to harm and limit personal growth (Benlian, 2020). Dealing with challenge and hindrance stressors requires employees to invest emotional and cognitive effort (Lepine et al., 2007). They feel positively stimulated by challenge stressors but constrained by hindrance stressors (Lepine et al., 2016). While challenge stressors typically have positive effects on employees, such as leading to greater job satisfaction, hindrance stressors have negative effects (Cavanaugh et al., 2000). Challenge and hindrance stressors can be caused by different sources of stress (Lepine et al., 2007), so we consider whether challenge and hindrance stressors relate to ICT, work and family in different ways that influence telework success. In the following, we provide an overview of IS and management stress research on challenge and hindrance stressors (see Appendix A; Table A3).

ICT related challenge stressors refer to ICT related demands that provide employees with opportunities for personal growth, such as completing a large amount of work or performing complex tasks using ICT (Maier, Laumer, Tarafdar, et al., 2021). Employees who experience ICT related challenge stressors are more satisfied with their jobs (Califf et al., 2020) and personal relationships (Benlian, 2020), are more productive (Zhao et al., 2020), are less likely to use workarounds to avoid the ICT (Cram et al., 2022) and increase the level of routine and innovative use of ICT (Maier, Laumer, Tarafdar, et al., 2021), and experience less work family conflict (Shi et al., 2023).

ICT related hindrance stressors refer to ICT related demands that have the potential to cause loss or impose constraints, such as when employees experience system failures or are unable to access or update an ICT that they rely on to do their jobs (Maier, Laumer, Tarafdar, et al., 2021). When employees experience ICT related hindrance stressors, they are less satisfied with their jobs (Califf et al., 2020) and personal relationships (Benlian, 2020), are less productive (Zhao et al., 2020), have lower levels of routine and innovative use of ICT (Maier, Laumer, Tarafdar, et al., 2021), and experience increased work family conflict (Shi et al., 2023).

Management research shows that challenge and hindrance stressors increase stress (Rosen et al., 2020) and lead to exhaustion (Podsakoff et al., 2007; Zhang et al., 2014). Work related challenge stressors include demands such as having heavy workloads or working under time pressure (Lepine et al., 2005). Employees who perceive such challenge stressors report higher job satisfaction (Podsakoff et al., 2007), are more engaged in their jobs (Du et al., 2019), and perform better at work (Lu et al., 2016; Wallace et al., 2009). Despite these beneficial effects, employees who perceive work related challenge stressors report increased anxiety (Rodell & Judge, 2009) and show decreased performance when work related challenge stressors vary over time (Rosen et al., 2020). While some studies argue that they make employees more susceptible to burnout (Crawford et al., 2010), others suggest that they do not influence burnout (Ventura et al., 2015).

Work related hindrance stressors are demands that interfere with employees' ability to achieve work related goals, such as resource inadequacy or organisational politics (Cavanaugh et al., 2000; Moore, 2000). They have negative effects on employees, such as causing them to perceive lower job satisfaction (Podsakoff et al., 2007), be less engaged (Ventura et al., 2015), and perform worse at work (Lepine et al., 2016; Pearsall et al., 2009). In addition, work related hindrance stressors increase the risk of burnout (Crawford et al., 2010; Ventura et al., 2015).

### 2.3 | A configurational and stress-theoretic perspective on telework success

Our review of stress research suggests that challenge and hindrance stressors from different stress sources shape teleworkers' stress. While hindrance stressors harm employees, challenge stressors can have beneficial and harmful effects on employees (see Table 1). For example, work related challenge stressors decrease emotional exhaustion (Sessions et al., 2020) and increase job performance (Lu et al., 2016) but can also lead to exhaustion (Zhang et al., 2014) and increase burnout (Crawford et al., 2010).

Recent research points to interdependencies between challenge and hindrance stressors (Maier, Laumer, Tarafdar, et al., 2021; Pflügner et al., *Forthcoming*), and conceptual work indicates reciprocal effects between challenge and hindrance stressors from different stress sources (Lepine et al., 2007). Building on this illustration, we suggest that the interplay between challenge and hindrance stressors related to different stress sources points to an approach to explaining discrepant findings. Because teleworkers have a deeply integrated work and family life enabled by the use of ICT (Hafermalz & Riemer, 2021), they are naturally exposed to challenge and hindrance stressors related to ICT, work and family. As such, considering telework success as the result of combinations of ICT, work and family related hindrance stressors, that is, configurations, provides an opportunity to explain discrepant findings by shedding light on the interplay among challenge and hindrance stressors from different stress sources.

**TABLE 1** Discrepant findings on challenge stressors.

	Challenge stressors are beneficial to	Challenge stressors are harmful to
<b>ICT related challenge stressors</b>	<ul style="list-style-type: none"> <li>Family satisfaction (Shi et al., 2023)</li> <li>Job satisfaction (Califf et al., 2020; Shi et al., 2023)</li> <li>Partnership satisfaction (Benlian, 2020)</li> <li>Routine and innovative use (Maier, Laumer, Tarafdar, et al., 2021)</li> </ul>	—
<b>Work related challenge stressors</b>	<ul style="list-style-type: none"> <li>Attentiveness (Rodell &amp; Judge, 2009; Rosen et al., 2020)</li> <li>Emotional exhaustion (Sessions et al., 2020)</li> <li>Employee creativity (Ding et al., 2019)</li> <li>Engagement (Crawford et al., 2010; Ventura et al., 2015)</li> <li>Job performance (Aw et al., 2020; Lepine et al., 2005; Lu et al., 2016; Wallace et al., 2009; Zhang et al., 2019)</li> <li>Job satisfaction (Aw et al., 2020; Cavanaugh et al., 2000; Podsakoff et al., 2007)</li> <li>Motivation (Lepine et al., 2005)</li> <li>Organisational commitment (Podsakoff et al., 2007)</li> <li>Team performance (Pearsall et al., 2009)</li> </ul>	<ul style="list-style-type: none"> <li>Anxiety (Rodell &amp; Judge, 2009; Rosen et al., 2020)</li> <li>Burnout (Crawford et al., 2010)</li> <li>Job performance (Rosen et al., 2020)</li> <li>Exhaustion (J. A. Lepine et al., 2005; Podsakoff et al., 2007; Zhang et al., 2014)</li> </ul>
<b>Family related challenge stressors</b>	—	—

## 2.4 | Proposing causal recipes ‘a priori’

Using the challenge-hindrance stressor framework to reconcile discrepant findings in the telework literature, we develop causal recipes for how configurations of ICT, work and family related challenge and hindrance stressors lead to high and low telework success.

### 2.4.1 | Causal recipe for high telework success

Teleworkers can draw strength from ICT, work and family related stressors. ICT related stressors such as using ICT to meet tight time schedules are beneficial to employees, leading them to optimise their ICT use (Maier, Laumer, Tarafdar, et al., 2021) and be more satisfied with their jobs (Califf et al., 2020). Given that teleworkers are typically required to use ICT (Kuruzovich et al., 2021), we suggest that teleworkers generally benefit from experiencing ICT related challenge stressors. For example, participating in large virtual meetings via videoconferencing software may allow teleworkers to simultaneously respond to emails (i.e., an ICT related challenge stressor), which may enable them to get more work done and thus help them achieve greater telework success.

Likewise, employees benefit from work related challenge stressors such as having high levels of responsibility, leading to higher job satisfaction (Podsakoff et al., 2007) and better performance (Zhang et al., 2019). We suggest that teleworkers generally benefit from experiencing work related challenge stressors. For example, teleworkers may appreciate being responsible for projects with other teleworkers (i.e., a work related challenge stressor), which helps them achieve greater telework success.

Teleworkers who live with family members value social interactions with them (Neufeld & Fang, 2005) and perceive more benefits of telework than teleworkers who do not live with family members (Iskan & Naktiyok, 2005). These findings are consistent with anecdotal evidence that family related challenges affect telework success

(Dickler, 2021), suggesting that family related challenge stressors, for example, taking care of children during the workday, promote telework success.

Stressors from one area of life can also influence other areas of life (Lepine et al., 2007). For example, if employees perceive ICT related challenge stressors, it may help them experience less work family conflict (Shi et al., 2023) and be more satisfied with relationships in their private life (Benlian, 2020). Building on the idea that teleworkers are exposed to ICT, work and family simultaneously (Shi et al., 2023), it is important to consider how challenge stressors from ICT and family might spill over into teleworkers' work lives and affect telework success. For example, they might increase telework success in addition to work related challenge stressors, such that teleworkers, who experience ICT, work and family related challenge stressors might be more likely to have high telework success.

ICT and work related hindrance stressors constrain work related outcomes (Califf et al., 2020; Ventura et al., 2015), such as telework success. For example, teleworkers are likely to be hindered if their ICT does not work properly, such as a microphone failure in a virtual meeting (i.e., ICT related hindrance stressor), which negatively impacts their telework success. Similarly, work related hindrances, such as communication problems due to not being co-located with colleagues and supervisors (i.e., a work related hindrance stressor), limit their telework success. Because telework blurs the boundaries between work and family (Chen & Karahanna, 2018), teleworkers often face family related hindrance stressors such as work family conflict while teleworking (Shi et al., 2023), which potentially harm their telework success (Gajendran & Harrison, 2007).

Given that individuals tend to pay more attention to negative experiences than to comparable positive experiences (Baumeister et al., 2001), we propose that teleworkers benefit from high ICT, work and family related challenge stressors only when their resources are not occupied with high ICT, work and family related hindrance stressors. We propose the following causal recipe (CR) that leads to high telework success:

CR1 *Configurations including high ICT, work and family related challenge stressors and low ICT, work and family related hindrance stressors lead to high telework success*<sup>1</sup>.

$$IC \quad IH \quad WC \quad WH \quad FC \quad FH \rightarrow TS_{High}$$

## 2.4.2 | Causal recipe for low telework success

The positive influence of challenge stressors can be negated if employees experience them excessively (Hargrove et al., 2013). Dealing with challenge and hindrance stressors requires employees to invest resources (Du et al., 2019), which might prevent teleworkers from benefiting from ICT, work and family related challenge stressors. Teleworkers who experience hindrance stressors from at least one stress source may lack the necessary resources to benefit from challenge stressors, as employees weight negative stimuli more strongly than positive stimuli (Ito et al., 1998). For instance, a teleworker who is constantly dropped from a virtual meeting because of a poor Internet connection (e.g., a high ICT related hindrance stressor) may not reap the benefits of being responsible for challenging projects with other teleworkers (e.g., a work related challenge stressor). We propose that when teleworkers experience high hindrance stressors from at least one of the sources of stress, they do not simultaneously benefit from challenge stressors because they must direct resources to addressing the hindrance stressors. In other words, experiencing high hindrance stressors from ICT, work or family outweighs the potential benefit of experiencing challenge stressors

<sup>1</sup>Following extant research (Park, Fiss, et al., 2020), we present proposed causal recipes leading to high or low telework success using Boolean notation, which allows them to be compared to empirically observed configurations in Study 1. In Boolean notation, '\*' is the logical AND, '+' is the logical OR, '¬' is the logical NOT, and '→' is the logical implication sign. We indicate ICT related challenge stressors with 'IC', ICT related hindrance stressors with 'IH', work related challenge stressors with 'WC', work related hindrance stressors with 'WH', family related challenge stressors with 'FC', family related hindrance stressors with 'FH', and telework success with 'TS'.

from these sources of stress. Therefore, we propose that challenge stressors are not relevant for low telework success and propose the following causal recipe leading to low telework success:

CR2 Configurations including high ICT, work, or family related hindrance stressors lead to low telework success.

$$IH + WH + FH \rightarrow TS_{Low}$$

### 3 | MIXED METHODS APPROACH

This paper integrates two sequential studies using a mixed methods approach (Venkatesh et al., 2013) (see Figure 1). In Study 1, we followed a deductive theory testing approach, using deductive fuzzy set qualitative comparative analysis (dfsQCA) to analyse how configurations of ICT, work and family related challenge and hindrance stressors lead to telework success. We compared our ‘a priori’ causal recipes with the empirically identified configurations ‘a posteriori’, which allows us to test theory deductively with a configurational perspective. In Study 2, we took a qualitative approach to extend the findings of Study 1 by shedding light on the interplay among ICT, work and family related challenge and hindrance stressors that lead to high and low telework success. We then triangulated Study 1 and Study 2 to derive convergent and complementary insights into how ICT, work and family related challenge and hindrance stressors lead to high and low telework success.

#### 3.1 | Study 1: Configurations of ICT, work and family related challenge and hindrance stressors lead to telework success

To empirically test the proposed causal recipes, we followed guidelines for fsQCA in IS research that recommend using dfsQCA to test theory in contexts with complex phenomena (Park, Fiss, & El Sawy, 2020), as is the case with the interplay among ICT, work and family related challenge and hindrance stressors guiding telework success. This approach is consistent with our objective since we aim to identify configurations of ICT, work and family related challenge and hindrance stressors that lead to high or low telework success. Since existing fsQCA studies in IS research largely follow inductive study designs (see Appendix A; Table A4), we demonstrate how IS research can benefit from dfsQCA. By combining a configurational approach with a theory testing perspective, dfsQCA offers opportunities to gain more nuanced insights into causally complex phenomena. We contrast inductive fsQCA and dfsQCA in Table 2.

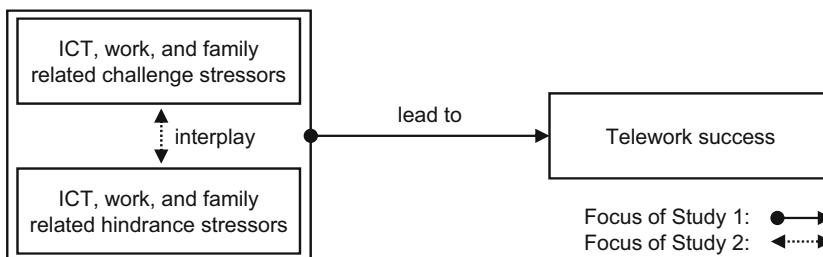


FIGURE 1 Two-strand research approach.

**TABLE 2** Comparison of inductive fsQCA and dfsQCA.

	Inductive fsQCA	Deductive fsQCA (dfsQCA)
<b>Focus</b>	Inductive theory development	Deductive theory testing
<b>Application scenario</b>	Exploratory approach to generate insights in contexts with limited guidance from theory that makes it impractical to propose how the conditions relate to an outcome.	Confirmatory approach to generate insights in contexts with existing guidance from theory that allows proposing how the conditions relate to an outcome.
<b>Approach</b>	<ol style="list-style-type: none"> <li>1. Conduct an fsQCA to identify sufficient configurations.</li> <li>2. Propose causal recipes 'a posteriori' based on the empirically identified sufficient configurations and literature.</li> </ol>	<ol style="list-style-type: none"> <li>1. Propose causal recipes 'a priori'.</li> <li>2. Conduct an fsQCA to identify sufficient configurations.</li> <li>3. Identify intersections of proposed causal recipes with the empirically identified sufficient configurations.</li> <li>4. Refine, extend, and delimit theory based on the intersections.</li> </ol>
<b>Development of causal recipes</b>	A posteriori	A priori
<b>Examples in IS research</b>	(Fedorowicz et al., 2018; Iannacci & Cornford, 2018; Koo et al., 2019; J. Lin et al., 2023; Liu et al., 2017; Mikalef & Krogstie, 2020)	This study

**TABLE 3** Demographics of 375 survey participants.

Age (%)	Sex (%)	Profession (%)	Share of telework (%)
<30	17.79	Female 26.93	IT professional 66.67
30–39	29.38	Male 72.80	Non-IT professional 33.33
40–49	27.23	Other 0.27	
50–59	21.83		
>59	3.77		

### 3.1.1 | Data collection

To evaluate the causal recipes, we analysed data collected from teleworkers through an online survey. We recruited participants from a panel of employees, predominantly IT professionals, who expressed interest in participating in surveys and whom the research team regularly surveys on various IS related topics. We invited more than 1000 participants from our panel to participate in our study. As an incentive, we raffled off two prizes among the participants. Within 1 month, 375 participants, who are currently employed, telework at least 1 day per week, and skipped not more than one question, completed the survey. Table 3 below summarises the demographics of our sample of survey participants.

### 3.1.2 | Measures

Whenever possible, we used established measures. Specifically, we drew on measures from previous research to operationalise *ICT related challenge stressors* with nine items and *ICT related hindrance stressors* with eight items (Maier, Laumer, Tarafdar, et al., 2021). We drew on extant research for the constructs for *work related challenge stressors* and *work*

related hindrance stressors, with 10 items for each construct (Lepine et al., 2016). For the constructs *family related challenge stressors* and *family related hindrance stressors*, we adapted existing measures for ICT related challenge and hindrance stressors from IS research (Maier, Laumer, Tarafdar, et al., 2021) to reflect the stress source family instead of ICT. For the construct *family related challenge stressors*, we adapted nine items. For the construct *family related hindrance stressors*, we adapted seven items. To measure *telework success*, we used four items for *satisfaction* and five for *performance* when teleworking (Belanger et al., 2001). We used a seven-point Likert scale ranging from one ('strongly disagree') to seven ('strongly agree') to assess the measurement items. We provide a complete summary of our measures in Appendix B; Table B1.

### 3.1.3 | Measurement model

We tested our model for indicator reliability, construct reliability, and discriminant validity (Pappas & Woodside, 2021). We dropped five items of *work related challenge stressors*, four of *work related hindrance stressors*, two of *family related challenge stressors*, one of *family related hindrance stressors*, and one of *performance* due to insufficient loading. We also dropped one item of *satisfaction* because it had high loadings for satisfaction and performance when teleworking. All remaining items surpass the threshold of 0.707 (Carmines & Zeller, 2008), suggesting *indicator reliability* (see Appendix B; Table B1). We confirmed *construct reliability*, as the composite reliability (CR) of all measures is greater than 0.70 and the average variance extracted (AVE) surpasses 0.50 (see Table 4). The square root of the AVE satisfied the requirement of being higher than the respective construct correlations (Fornell & Larcker, 1981), suggesting *discriminant validity*. Using the HTMT ratio test (Henseler et al., 2014), we found that the highest value was 0.76, which is below the HTMT<sub>0.85</sub> threshold, indicating that discriminant validity is not an issue. To ensure that multicollinearity is not an issue, we examined the variance inflation factors (VIF). The VIF values range from 1.62 to 4.28, below the threshold of five (Menard, 2002). We concluded that our measurement model was valid and reliable and proceeded with the analysis.

### 3.1.4 | Data analysis using dfsQCA

We used a configurational approach (Misangyi et al., 2017) to investigate how ICT, work and family related challenge and hindrance stressors lead to high or low telework success. Among configurational approaches, fsQCA is considered the dominant method (Liu et al., 2017; Mattke, Maier, Weitzel, & Thatcher, 2021). fsQCA allows us to analyse how multiple conditions together, that is, configurations, lead to an outcome. In this study, we used fsQCA in a deductive manner, which we refer to as dfsQCA, to investigate how configurations of ICT, work and family related challenge and hindrance stressors lead to telework success. In other words, the stressors are the conditions, and telework success is the outcome. We first investigated sufficient configurations that lead to high and low telework success. We then identified necessary conditions, which must be high or low for teleworkers to have high or low telework success but are not alone sufficient to lead to an outcome.

We first calculated the mean of each construct. Combining the means of satisfaction and performance, we calculated the average of satisfaction and performance to reflect telework success. We next used direct calibration to compute the conditions to values ranging from zero to one, that is, their fuzzy set memberships (Ragin & Davey, 2016). The fuzzy set membership zero indicates that a condition does not apply at all to a teleworker, whereas a value of one expresses that a condition applies completely to a teleworker. Values between zero and one indicate partial memberships to a condition. To comply with fsQCA naming conventions and consider that partial memberships exist, we refer to conditions that do not apply to a teleworker as low conditions and conditions that apply to teleworkers as high conditions.

Using dfsQCA allows us to assess conjunctural causation and equifinality (Mattke, Maier, Weitzel, & Thatcher, 2021). Conjunctural causation is when different conditions collectively lead to an outcome. Unlike linear approaches, dfsQCA

**TABLE 4** Descriptive statistics and discriminant validity.

	M	SD	CR	CA	AVE	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) ICT related challenge stressors	5.53	1.16	0.94	0.93	0.63	0.80							
(2) ICT related hindrance stressors	2.96	1.41	0.94	0.92	0.65	0.28	0.80						
(3) Work related challenge stressors	5.93	0.95	0.91	0.87	0.66	0.64	0.26	0.81					
(4) Work related hindrance stressors	3.28	1.46	0.92	0.90	0.67	0.27	0.69	0.17	0.82				
(5) Family related challenge stressors	4.54	1.38	0.93	0.92	0.67	0.12	0.29	0.11	0.22	0.82			
(6) Family related hindrance stressors	3.01	1.47	0.93	0.92	0.70	0.17	0.52	0.21	0.50	0.44	0.84		
(7) Telework success: Performance	4.63	1.30	0.93	0.90	0.77	0.43	0.59	0.39	0.63	0.19	0.47	0.88	
(8) Telework success: Satisfaction	4.47	1.71	0.94	0.91	0.85	0.37	0.57	0.34	0.61	0.24	0.41	0.70	0.92

Abbreviations: AVE, average variance extracted; the square root of AVE is listed on the diagonal of bivariate correlations; CA, Cronbach's  $\alpha$ ; CR, composite reliability; M, mean; SD, standard deviation.

allows us to study how different combinations of multiple challenge and hindrance stressors collectively lead to telework success. Equifinality occurs when multiple configurations of conditions lead to the same outcome (Misangyi et al., 2017). Hence, we can analyse multiple paths of different combinations of ICT, work and family related challenge and hindrance stressors that lead to telework success using dfsQCA. We describe all steps of the QCA, for which we used the QCA package in R (Duşa, 2019), in Appendix B. We validated the quantitative inferences in terms of data collection and analysis, confirming design validity, measurement validity, and inferential validity (see Appendix B; Table B4).

### 3.1.5 | Results

The analysis of necessary conditions showed that *low ICT related hindrance stressors* are a necessary condition for high telework success (consistency = 0.92, coverage = 0.79, relevance of necessity = 0.65). We did not identify any condition exceeding the recommended thresholds for low telework success. The analysis for sufficient configurations showed two sufficient configurations for high telework success and two sufficient configurations for low telework success. We do not perform a counterfactual analysis based on theoretical assumptions, that is, make no use of logical reminders (Iannacci et al., 2022), allowing for a clear separation and comparison of the empirically identified sufficient configurations and proposed causal recipes. Leveraging the conservative solution, we empirically capture the causal complex relationship between the stressors and telework success in a non-parsimonious fashion. We provide a graphical representation of the conservative solution, including empirically identified configurations that lead to high and low telework success, in Figure 2.

Solution consistency and coverage reflect the overall quality of the solutions (Ragin, 2006). Solution coverage represents the proportion of observations described by sufficient configurations (Ragin, 2006), and the solution consistency represents the extent to which the configurations explain the outcome (Schneider & Wagemann, 2010). The solution coverage for high telework success is 0.79, and the solution consistency is 0.90. The solution coverage for low telework success is 0.51, and the solution consistency is 0.91. This indicates that the solutions have high explanatory power.

The first sufficient configuration for high telework success (H1) describes teleworkers who experience high ICT, work and family related challenge stressors and low ICT and work related hindrance stressors. The second sufficient configuration for high telework success (H2) explains teleworkers who experience high ICT and work related challenge stressors and low ICT, work and family related hindrance stressors.

	High telework success		Low telework success	
	H1	H2	L1	L2
ICT related challenge stressors	●	●	●	⊗
ICT related hindrance stressors	☆	☆	●	⊗
Work related challenge stressors	●	●	●	●
Work related hindrance stressors	⊗	⊗	●	●
Family related challenge stressors	●		●	●
Family related hindrance stressors		⊗		●
Raw coverage	0.58	0.74	0.48	0.19
Unique coverage	0.05	0.21	0.32	0.02
Consistency	0.90	0.91	0.91	0.97
Solution coverage	0.79		0.51	
Solution consistency	0.90		0.91	

Note: Black circles (●) indicate high stressors, white crossed-out circles (⊗) indicate low stressors, and blank spaces ( ) indicate 'don't care' situations. In these cases, the specific stressors are irrelevant to the configuration and can be high or low. White stars (☆) indicate a necessary condition that needs to be low for teleworkers to have high telework success.

FIGURE 2 Sufficient configurations leading to high and low telework success.

The first sufficient configuration for low telework success (L1) describes teleworkers who experience high ICT, work and family related challenge stressors and high ICT and work related hindrance stressors. The second sufficient configuration for low telework success (L2) describes teleworkers who experience low ICT related challenge and hindrance stressors and high work and family related challenge and hindrance stressors.

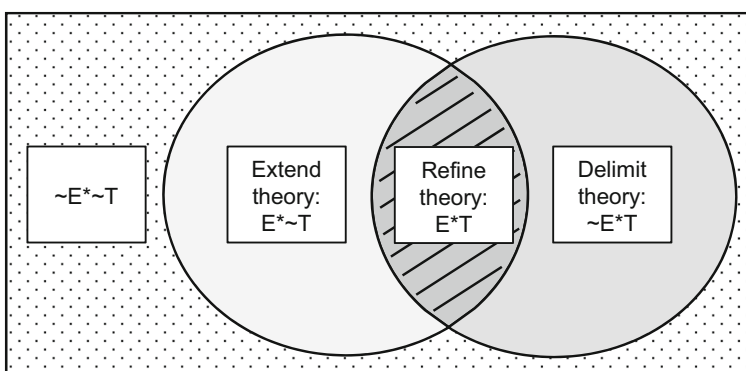
The four sufficient configurations exceed the minimum required consistency of 0.75. The raw coverage ranges from 0.19 to 0.74, suggesting that all configurations are empirically relevant. The unique coverage ranges from 0.02 to 0.32, suggesting that each configuration uniquely contributes to explaining telework success.

### 3.2 | Evaluation of proposed causal recipes

We evaluated the proposed causal recipes using Boolean algebra (Schneider & Wagemann, 2012). In contrast to linear approaches, configurational approaches do not focus on binary acceptance or rejection of hypotheses (Iannacci & Kraus, 2022). Instead, by examining the overlap between theory and findings, they provide a way to examine whether and how empirical data support the theory and whether the theory needs to be extended or delimited based on the findings (Schneider & Wagemann, 2012).

Our evaluation included four steps (see Figure 3). First, we mapped how the empirically identified configurations (E) intersect with our theoretically proposed causal recipes (T). This allows us to refine theory by examining if and how the theoretical causal recipes are supported by empirical data ( $E^*T$ ). Second, we identified empirical findings that do not overlap with the theoretical causal recipes by mapping how the empirically identified configurations intersect with the negated theoretical causal recipes ( $E^*\sim T$ ). This enabled us to extend theory based on the empirically identified configurations. Third, we revealed configurations suggested by our causal recipes that are not covered by sufficient configurations based on the empirical data ( $\sim E^*T$ ). This allowed us to delimit theory based on the theoretical causal recipes not supported by the empirical data. Fourth, we studied configurations that are neither suggested by our causal recipes nor the empirically identified sufficient configurations ( $\sim E^*\sim T$ ), allowing us to check for configurations that may be missed by both theory and empirical data.

In the following, we present the empirically identified configurations, the theoretical causal recipes, and their intersections, which we then use to refine, extend, and delimit theory, expressed as Boolean statements for high and low telework success (see Table 5). We used the QCA package for R to evaluate the proposed causal recipes (Duşa, 2019).



**FIGURE 3** Evaluation of the causal recipes. 'E' indicates empirically identified configurations; 'T' indicates theoretical causal recipes.

**TABLE 5** Evaluation of causal recipes.

	High telework success	Low telework success
Empirically identified configuration (E)	IC* IH*WC* WH*FC + IC* IH*WC* WH* FH	IC*IH*WC*WH*FC + IC* IH*WC*WH*FC*FH
Theoretical causal recipe (T)	IC* IH*WC* WH*FC* FH	IH + WH + FH
E*T (refine theory)	IC* IH*WC* WH*FC* FH	IC*IH*WC*WH*FC + IC* IH*WC*WH*FC*FH
E* T (extend theory)	IC* IH*WC* WH* FC* FH + IC* IH*WC* WH*FC*FH	–
E*T (delimit theory)	–	IC*IH + IH* WC + IH* WH + IH* FC + WC*WH + WC*FH + WH*FH + WH* FC + FC*FH + IC*WH* FH + IC* IH*WH + IC* IH*FH
E* T	IC + IH + WC + WH + FC*FH	IH* WH* FH

Note: '+' indicates logical OR, '\*\*' indicates logical AND, '-' indicates logical not, 'IC' indicates ICT related challenge stressors, 'IH' indicates ICT related hindrance stressors, 'WC' indicates work related challenge stressors, 'WH' indicates work related hindrance stressors, 'FC' indicates family related challenge stressors, 'FH' indicates family related hindrance stressors.

### 3.2.1 | High telework success

Our findings show that the theoretical causal recipe is a subset of the empirically identified configurations (E\*T), which implies strong support for the theoretical causal recipe and shows that it has high explanatory power to explain high telework success (consistency = 0.91, proportional reduction of inconsistency (PRI) = 0.87, coverage = 0.53).

The empirically identified configurations leading to high telework success that are not covered by the theoretical causal recipe (E\* T) allow us to extend the theory. Our findings show that teleworkers do not need to experience family related challenge stressors if they do not experience family related hindrance stressors. Likewise, they can overcome family related hindrance stressors if they experience family related challenge stressors (consistency = 0.92, PRI = 0.87, coverage = 0.49). This highlights the importance of high ICT and work related challenge stressors and low ICT and work related hindrance stressors. It shows that teleworkers can have high telework success under these circumstances as long as they do not experience low family related challenge stressors together with high family related hindrance stressors. Since no configurations are covered by the theoretical causal recipe, but not the empirically identified configurations (E\*T), we do not delimit the theory.

We uncover configurations that are neither covered by the empirically identified configurations nor by the theoretical causal recipes for high telework success (E\* T). Since the parameters of fit of this solution are well below acceptable thresholds for fsQCA (consistency = 0.56, PRI = 0.31, coverage = 0.42), and each individual configuration's parameters of fit are also below the thresholds, we do not update the empirical solution or the theory for high telework success on this basis.

### 3.2.2 | Low telework success

The resulting configuration of the intersection between the empirically identified configurations and the theoretical causal recipe (E\*T) shows that the proposed causal recipe requires refinement to explain low telework success. For low telework success, it is not sufficient for teleworkers to experience either high ICT, work, or family related hindrance stressors. Instead, they must either experience ICT and work related hindrance stressors and ICT, work and family related challenge

stressors, or experience no ICT related challenge and hindrance stressors while experiencing work and family related challenge and hindrance stressors (consistency = 0.91, PRI = 0.81, coverage = 0.51). Thus, the results suggest that challenge stressors catalyse the negative effect of hindrance stressors on telework success. Since no empirically identified configurations are not covered by the theoretical causal recipe ( $E^* T$ ), we refrain from extending the theory.

The configurations covered by the theoretical causal recipe but not the empirically identified configurations ( $E^* T$ ) suggest the need to delimit the theory. Since the parameters of fit of this solution are below the acceptable thresholds (consistency = 0.69, PRI = 0.43, coverage = 0.63), we examine the parameters of fit of the underlying configurations. The individual parameters of fit show that 10 of the 12 configurations are below the recommended thresholds. Thus, these configurations do not reliably predict low telework success, despite being suggested by the causal recipes, thus contradicting the theory and suggesting the need for delimitation. At their core, these 10 configurations again support that distinct ICT, work, or family related hindrance stressors are insufficient to explain low telework success.

The two configurations above the recommended thresholds suggest that teleworkers who do not experience work related challenge stressors but do experience work related hindrance stressors (consistency = 0.98, PRI = 0.88, coverage = 0.20) and those who do not experience work related challenge stressors but do experience family related hindrance stressors have low telework success (consistency = 0.95, PRI = 0.76, coverage = 0.18). Examining the truth table, we see that the underlying configurations in our sample are populated with either one or two observations, so they do not exceed the frequency threshold of three, which explains why they are not included in the empirically identified configurations. Despite the small number of observations, the configurations have high consistency and PRI scores. Since the theoretical causal recipe suggests that teleworkers with these configurations have low telework success, and the empirical data do not contradict this, we refrain from delimiting the theory based on these two configurations.

While we also uncover a configuration that is neither covered by the empirically identified configurations nor by the theoretical causal recipes for low telework success ( $E^* T$ ), the parameters of fit are well below the acceptable thresholds (consistency = 0.35, PRI = 0.12, coverage = 0.49). Therefore, we do not update the empirical solution or theory for low telework success based on this configuration.

In summary, the empirical findings support the proposed causal recipes for high telework success. The proposed causal recipes for low telework success are partially supported. Exploring the intersections between the empirically identified configurations and the theoretical causal recipes revealed opportunities to refine, extend, and delimit the theory of the challenge-hindrance stressor framework.

### 3.3 | Study 2: ICT, work and family related challenge and hindrance stressors and the interplay among them

We conducted a qualitative analysis in Study 2 to extend the findings of Study 1 by identifying distinct illustrative ICT, work and family related challenge and hindrance stressors and shedding light on the interplay among ICT, work and family related stressors within the identified sufficient configurations for high and low telework success.

#### 3.3.1 | Data collection

We analysed data collected from remotely conducted interviews with employees who currently telework at least once a week. We began by approaching potential participants in the authors' professional and social circles, and then used snowball sampling to identify additional suitable participants (Myers & Newman, 2007). In total, we interviewed 52 teleworkers. In the first step, we interviewed 42 teleworkers to identify distinct illustrative ICT, work and family related challenge and hindrance stressors. In the second step, we asked the remaining 10 teleworkers to look at the results of Study 1 and, if possible, to classify themselves into one of the sufficient configurations for high and low telework success. We created our interview guidelines in accordance with the recommendations of previous

**TABLE 6** Demographics of the 52 teleworkers.

Age (%)	Sex (%)	Profession (%)	Share of telework (%)
<30	28.85	Female 40.38	IT professional 69.23
30–39	51.92	Male 59.62	Non-IT professional 30.77
40–49	13.46	Other 0.00	
50–59	3.85		
>59	1.92		

research (Myers & Newman, 2007) and conducted semi-structured qualitative interviews (Schultze & Avital, 2011) (see Appendix C; Tables C1 and C2). We recorded all the interviews with the permission of the interviewees and transcribed them for qualitative analysis purposes. We report the sample characteristics in Table 6.

### 3.3.2 | Data analysis

Our qualitative analysis followed the established descriptive-interpretive approach (Myers, 2019). In the first step, we identified distinct illustrative ICT, work and family related challenge and hindrance stressors. First, we highlighted statements related to stressors affecting teleworkers' satisfaction and performance. We then used descriptive coding to classify the identified statements. For example, we coded the following statement with the descriptive code *experiencing connection problems*: "Sometimes my Internet connection at home gets disrupted, so I miss out on important information in a Zoom session. This is really annoying, and I always have to waste a lot of time catching up on everything that was discussed on the call". Similarly, we coded this statement with the descriptive code *experiencing application errors*: "I don't know why, but OneNote keeps freezing on my laptop when I'm in my home office. Maybe it has something to do with the VPN, or maybe I am just doing something wrong. Either way, it's very annoying and disturbing when I have to take care of the IT instead of working". We then used interpretive coding to group similar descriptive codes together. For example, we coded the descriptive codes *experiencing connection problems* and *experiencing application errors* with the interpretive code *ICT hassles*. We then mapped the interpretive codes to ICT, work and family related challenge and hindrance stressors. We used the qualitative data analysis software MAXQDA to support the coding procedure and provide an example of the coding in Appendix C; Table C3.

In the second step, we asked respondents whether they perceived themselves as belonging to one of the configurations and, if so, to elaborate on why they identified with the chosen configuration. Using these insights, we can show how ICT, work and family related challenge and hindrance stressors interact in the sufficient configurations.

### 3.3.3 | Results

The results of step one revealed distinct illustrative ICT, work and family related challenge and hindrance stressors that guide telework success at a meta-level. We describe the identified ICT, work and family related challenge and hindrance stressors in Table 7.

Looking at the experienced ICT, work and family related challenge and hindrance stressors, we confirm that none of the interviewed teleworkers deals with separate stressors from ICT, work or family. Instead, teleworkers deal with multiple challenge and hindrance stressors from ICT, work and family simultaneously. For example, one teleworker explains that she is more productive when she uses videoconferencing software to participate in consecutive meetings without physically moving (i.e., ICT related challenge stressors), which gives her more time to work on complex tasks that require her full concentration (i.e., work related challenge stressors). Telework also allows her to manage family activities more efficiently (i.e., family related challenge stressors), so she has high telework success.

**TABLE 7** Illustrative ICT, work and family related challenge and hindrance stressors.

Stressor category	Definition	Illustrative stressor	Description
ICT related challenge stressors	ICT related demands with the potential for employees' personal growth (Maier, Laumer, Tarafdar, et al., 2021).	ICT enabled multitasking	Conditions in which teleworkers use ICT to perform several work tasks at the same time, thus completing more work.
		ICT enabled work pace	Conditions in which teleworkers use ICT to perform work tasks faster.
		Use of ICT related skills	Conditions in which teleworkers use ICT in novel ways to perform complex work tasks.
ICT related hindrance stressors	ICT related demands with the potential for employees' loss or constraint (Maier, Laumer, Tarafdar, et al., 2021).	ICT hassles	Conditions in which teleworkers encounter ICT related problems that prevent them from completing work tasks.
		Inadequate ICT resources	Conditions in which teleworkers receive insufficient ICT resources to perform their work tasks.
		Unclear ICT instructions	Conditions in which teleworkers are hindered by receiving incongruent instructions on how to use ICT for work tasks.
Work related challenge stressors	Work related demands with the potential for employees' personal growth (Lepine et al., 2016).	Workload	Conditions in which teleworkers perform additional work tasks.
		Work complexity	Conditions in which teleworkers perform difficult work tasks.
		Work responsibility	Conditions in which teleworkers perform work tasks with a high degree of responsibility.
Work related hindrance stressors	Work related demands with the potential for employees' loss or constraint (Lepine et al., 2016).	Conflicting supervisor requests	Conditions in which teleworkers receive unclear instructions from supervisors.
		Work conflicts	Conditions in which teleworkers are involved in disputes with colleagues or supervisors.
		Unclear work tasks	Conditions in which teleworkers are hampered by a lack of information about work tasks.
Family related challenge stressors	Family related demands with the potential for teleworkers' personal growth.	Family duties	Conditions in which teleworkers perform demanding family tasks.
		Family related multitasking	Conditions in which teleworkers perform multiple family tasks at the same time.
		Family responsibility	Conditions in which teleworkers perform family tasks with a high degree of responsibility.
Family related hindrance stressors	Family related demands with the potential for teleworkers' harm or constrain.	Inadequate family support	Conditions in which teleworkers receive insufficient support from family members.
		Family conflicts	Conditions in which teleworkers are involved in disputes with family members.
		Family hassles	Conditions in which teleworkers encounter problems related to their family.

Another teleworker reports that he often experiences errors when connecting to his organisation's network (i.e., ICT related hindrance stressors), which makes it even more difficult for him to deal with communication problems with his colleagues (i.e., work related hindrance stressors). Having problems with the ICT used and work make him sensitive to conflicts with family members (i.e., family related hindrance stressors), so he has low telework success.

The results of step two allow us to investigate the interplay among ICT, work and family related challenge and hindrance stressors in the sufficient configurations (see Figure 2). Three of the 10 remaining interviewees classified themselves as H1, three as H2, three as L1, and one as L2, confirming our empirical findings for high and low telework success (see Appendix C; Table C4). The interviews suggest that ICT related hindrance stressors turn the positive effect of ICT related challenge stressors for the worse, such that they ultimately contribute to low telework success: “We have a lot of discussions and team meetings in which I can often only contribute little. The rest of the time it's good to listen in, but you can still do some work on the side [ICT related challenge stressor]. While I think that's generally a good thing, we often have issues with virtual meetings like poor connections [ICT related hindrance stressor], which kind of reverses the benefits for me. I then have to make an extra effort to reconnect to the meeting and catch up on the missed information, which I find really disturbing”. Similarly, findings suggest that work related hindrance stressors reverse the positive effect of work related challenge stressors: “Since we started to create more virtual content for our clients because they also work from home, I worked on a lot of new tasks [work related challenge stressor]. That said, all the work hindrances, like the never-ending meetings that lead nowhere [work related hindrance stressor], really outweigh the upside of the new tasks. Somehow I feel like I'm just sitting in nonsense meetings all the time”.

In summary, the interviews confirm that, at a meta-level, ICT, work and family related challenge and hindrance stressors determine telework success and that experiencing hindrance stressors during telework reverses the initial positive effect of challenge stressors. Given that teleworkers show low telework success only when they experience both challenge and hindrance stressors (see configurations L1 and L2 in Figure 2), the findings suggest that challenge stressors reduce telework success when experienced together with hindrance stressors. We validated the qualitative inferences and ensured design validity, analytical validity, and inferential validity, as summarised in Appendix C; Table C5.

### 3.4 | Meta-inferences

We triangulated the quantitative inferences of Study 1 with the qualitative inferences of Study 2 to deduce convergent and complementary meta-inferences (Reis et al., 2022) (see Table 8). We also elicited meta-inferences on design quality, explanation quality and legitimization of meta-inferences (see Appendix D; Table D1).

## 4 | DISCUSSION

To understand why some teleworkers are more successful than others, we took a stress-theoretic and configurational perspective on telework success. Combining a quantitative approach in Study 1 with a qualitative approach in Study 2, we show how configurations of ICT, work and family related challenge and hindrance stressors lead to high or low telework success.

### 4.1 | Implications for research

Telework literature suggests that distinct, isolated stressors related to ICT, work, or family explain telework success (see Appendix A; Table A2). We advance these insights by providing evidence that teleworkers must simultaneously manage ICT, work and family related challenge and hindrance stressors. Managing challenge or hindrance stressors from one source of stress affects how teleworkers deal with challenge and hindrance stressors from other sources, such that their high and low telework success results from navigating configurations of ICT, work and family related challenge and hindrance stressors instead. We propose the boundary condition that if and how ICT, work and family

**TABLE 8** Deduction of meta-inferences.

Quantitative inferences of study 1	Qualitative inferences of study 2	Meta-inferences of study 1 and study 2	Explanation
<p>Telework success is shaped by ICT, work and family related challenge and hindrance stressors.</p> <p>Two configurations of challenge and hindrance stressors lead to high telework success, and two others lead to low telework success.</p>	<p>Convergent to Study 1. Teleworkers experience various distinct ICT, work and family related challenge and hindrance stressors (see Table 7).</p> <p>Convergent to Study 1. Qualitative findings confirm that telework success is subject to configurations of interplaying ICT, work and family related challenge and hindrance stressors.</p>	<p>Teleworkers experience distinct ICT, work and family related challenge and hindrance stressors that, at a meta-level, explain their high and low telework success.</p> <p>Multiple paths reflected by configurations of interplaying ICT, work and family related stressors lead to high and low telework success.</p>	<p>The inferences of Study 1 are confirmed by Study 2.</p> <p>Conceptual work suggests that simultaneous and reciprocal effects exist between challenge and hindrance stressors (Lepine et al., 2007). Our findings point toward the need to consider the effects of configurations of interplaying ICT, work and family related challenge and hindrance stressors rather than isolated challenge and hindrance stressors to comprehensively explain telework success.</p>
<p>The evaluation of the proposed causal recipes suggests that ICT, work and family related challenge stressors lead to low telework success when teleworkers simultaneously experience ICT and work related hindrance stressors. Teleworkers also have low telework success without ICT related challenge and hindrance stressors when they experience work and family related challenge and hindrance stressors.</p>	<p>Complementary to Study 1. Experiencing ICT, work and family related hindrance stressors alongside ICT, work and family related challenge stressors reverses the positive effect of challenge stressors.</p>	<p>The evaluation of the proposed causal recipes suggests the need to refine, extend, and delimit the challenge-hindrance stressor framework in the context of telework.</p> <p>Teleworkers can benefit from ICT and work related challenge stressors when they do not experience ICT and work related hindrance stressors. They can overcome family related hindrance stressors as long as they experience ICT, work and family related challenge stressors and no ICT and work related hindrance stressors.</p> <p>Solely ICT, work, or family related hindrance stressors are insufficient in explaining low telework success.</p>	<p>As handling challenge stressors requires employees to invest emotional and cognitive effort (Lepine et al., 2007), teleworkers might only be able to benefit from ICT, work and family related challenge stressors if their resources are not already tied up by handling hindrance stressors. When teleworkers experience challenge and hindrance stressors at the same time, challenge stressors can work as a catalyst for hindrance stressors and amplify their harmful effects.</p>

related challenge and hindrance stressors relate to high and low telework success depends on the specific configuration. For instance, family related hindrance stressors are irrelevant for high telework success if teleworkers experience ICT, work and family related challenge stressors and no other hindrance stressors (see configuration H1 in Figure 2). However, teleworkers must experience low family related hindrance stressors in another configuration to have high telework success (see configuration H2 in Figure 2). Our configurational perspective on telework success suggests that the interplay among ICT, work and family related challenge and hindrance stressors explains high and low telework success.

Extant stress literature suggests that challenge stressors are beneficial (Lu et al., 2016; Sessions et al., 2020) or harmful to work related outcomes (Abbas & Raja, 2019; Zhang et al., 2014). We reconcile these discrepant findings by examining the interplay among challenge and hindrance stressors from multiple stress sources. We show that teleworkers benefit from challenge stressors only when they do not have to deal with hindrance stressors at the same time. The positive effects of challenge stressors are diminished when they occur together with hindrance stressors. For example, one participant in our qualitative Study 2 stated that he enjoyed the fact that videoconferencing software allowed him to participate in virtual meetings while working on other tasks (i.e., ICT related challenge stressors), but frequent connection failures required him to invest effort in reconnecting and catching up on missed information (i.e., ICT related hindrance stressors). Experiencing the ICT related hindrance stressors simultaneously prevented him from benefiting from the ICT related challenge stressors and reversed their effects, effectively reducing his telework success. This example shows that when teleworkers invest their resources in managing high hindrance stressors from one stress source, it may limit their ability to invest resources in, and benefit from, challenge stressors from the same or other stress sources. We add to the recent literature (Maier, Laumer, Tarafdar, et al., 2021; Pflügner et al., *Forthcoming*) by showing that challenge stressors can catalyse negative outcomes when teleworkers experience them alongside hindrance stressors. We extend the research by providing insight into the interplay among challenge and hindrance stressors, thus providing an explanatory approach for discrepant findings in prior literature.

Extant telework research shows that ICT and work related stressors increase or decrease telework success (Carillo et al., 2021; Chong et al., 2020) and indicates that family related stressors play an essential role for teleworkers (Gajendran & Harrison, 2007; Shao et al., 2021). Our results confirm that teleworkers can be challenged and hindered by perceived stress and show that challenge and hindrance stressors from different stress sources interplay to lead to telework success. We also explain why some teleworkers are more successful than others, confirming that telework success is subject to challenge and hindrance stressors from the telework related stress sources ICT, work and family. The distinction between different sources of stress is new to the telework context and provides a novel theoretical perspective for explaining telework success. We extend research showing that family related stressors are detrimental to telework success (Gajendran & Harrison, 2007) by suggesting that teleworkers may experience family related challenge stressors as a source of strength for high telework success (see configuration H1 in Figure 2). While our findings suggest that family related stress is essential in explaining high and low telework success, we show that teleworkers can overcome family related hindrance stressors if they also experience family related challenge stressors. By integrating family related stress into the challenge-hindrance stressor framework, we contribute by explaining how family, together with ICT and work stress, explains telework success.

We contribute to the methodological discourse around configurational approaches in IS research by providing a proof of concept for using dfsQCA to test theory. While using dfsQCA for testing theory in IS research has been discussed in theory (Park, Fiss, & El Sawy, 2020), previous IS research using fsQCA has either generated theory taking abductive approaches or elaborated theory using inductive approaches (see Appendix A; Table A4). By using a dfsQCA approach on the challenge-hindrance stressor framework (Lepine et al., 2005), we provide a solid proof of concept for dfsQCA in the context of telework. We go beyond previous deductive configurational approaches in IS research (Park, Fiss, & El Sawy, 2020) by outlining how dfsQCA can be used to refine, extend, and delimit theory (see Table 9).

Integrating dfsQCA with a qualitative study in a mixed methods approach makes it possible to take advantage of the benefits of configurational deductive and qualitative inductive reasoning. dfsQCA provides insights by offering a way to test 'a priori' proposed causal recipes based on configurational logic. A qualitative study provides

**TABLE 9** Methodological steps for conducting dfsQCA.

Step	Description	Illustration in this study
Step 1: Propose causal recipes 'a priori' based on theory and literature	<ul style="list-style-type: none"> <li>• Draw on well-established knowledge from theory and extant literature to describe how configurations of conditions lead to an outcome.</li> </ul>	<ul style="list-style-type: none"> <li>• We proposed configurations of ICT, work and family related challenge and hindrance stressors that lead to high and low telework success based on theoretical arguments from the challenge-hindrance stressor framework (see CR1 and CR2).</li> </ul>
Step 2: Collect data and conduct an fsQCA	<ul style="list-style-type: none"> <li>• Collect data on the conditions and outcomes and use fsQCA to identify sufficient configurations. In doing so, follow the procedure explained and used in extant IS research (Mattke et al., 2022).</li> </ul>	<ul style="list-style-type: none"> <li>• Analysing data from 375 teleworkers, we revealed four sufficient configurations that lead to high and low telework success (see Figure 2).</li> </ul>
Step 3: Identify intersections between the empirically identified sufficient configurations (E) and the theoretically proposed causal recipes (T)	<ul style="list-style-type: none"> <li>• Identify the configurations covered by the empirically identified sufficient configurations and the theoretically proposed causal recipes (E*T).</li> <li>• Identify the configurations covered by the empirically identified sufficient configurations but not the theoretically proposed causal recipes (E* T).</li> <li>• Identify the configurations not covered by the empirically identified sufficient configurations but by the theoretically proposed causal recipes ( E*T).</li> </ul>	<ul style="list-style-type: none"> <li>• We revealed one configuration at the intersection E*T for high telework success and two for low telework success.</li> <li>• We revealed two configurations at the intersection E* T for high telework success and none for low telework success.</li> <li>• We revealed no configurations at the intersection E*T for high telework success and 12 for low telework success (see Table 5).</li> </ul>
Step 4: Use the identified intersections to refine, extend, and delimit theory	<ul style="list-style-type: none"> <li>• Use the configurations of the intersection E*T to confirm or reject the proposed causal recipes and investigate how the empirical data reflect the causal recipes.</li> <li>• Use the configurations of the intersection E* T to supplement extant explanations for an outcome by discussing why not all empirically identified sufficient configurations are covered by the proposed causal recipes.</li> <li>• Use the configurations of the intersection E*T to identify boundary conditions for extant explanations of an outcome by discussing why parts of the proposed causal recipes are not reflected in the empirical data.</li> </ul>	<ul style="list-style-type: none"> <li>• We showed that the proposed causal recipe for high telework success is fully supported by the data, and the proposed causal recipe for low telework success is partially supported. We refined explanations for low telework success by revealing that challenge stressors experienced alongside hindrance stressors lead to low telework success.</li> <li>• We extended explanations of high telework success by identifying two additional configurations highlighting the importance of considering family related challenge and hindrance stressors.</li> <li>• We identified the boundary condition that ICT, work or family related hindrance stressors alone are insufficient in explaining low telework success.</li> </ul>

opportunities to extend the resulting findings by offering fine-grained insights into the conditions (e.g., ICT, work and family related challenge and hindrance stressors) and how they interact in the identified sufficient configurations to shape a studied complex phenomenon (e.g., telework success). By triangulating findings from both studies to derive meta-inferences (Reis et al., 2022), researchers can use convergent, complementary, and divergent findings to advance theory. We contribute to IS research by providing a proof of concept for testing theory from a configurational perspective, and by illustrating how dfsQCA can be integrated into mixed methods approaches. This allows IS researchers to gain insights into complex causal relationships that are elusive to linear methods by combining the advantages of configurational deductive and inductive reasoning.

## 4.2 | Implications for practice

Our results have implications for organisations with telework arrangements or plans to offer telework arrangements to help teleworkers achieve telework success.

First, focus on minimising ICT related hindrance stressors. Our results indicate that for teleworkers to have high telework success, they should not experience ICT related hindrance stressors. Organisations should ensure ICT stability, familiarise teleworkers with ICT features and involve teleworkers in the introduction and further development of ICT so that teleworkers do not perceive ICT related hindrance stressors.

Second, train teleworkers to recognise the benefits of ICT and work related challenge stressors and how to avoid work related hindrance stressors, for example, by communicating how teleworkers can benefit from ICT and use it to work efficiently (Maier, Laumer, Tarafdar, et al., 2021). Organisations can create opportunities for work related challenge stressors, for example, by delegating challenging responsibilities to teleworkers (Lepine et al., 2016). They can identify and counteract specific work related hindrance stressors, for example, by offering support to mitigate work overload and ensuring fair rewards for teleworkers and non-teleworkers (Moore, 2000). By building on our finding that combinations of ICT, work and family related challenge and hindrance stressors lead to telework success, organisations can make informed decisions about balancing the benefits of challenge stressors with the cost of hindrance stressors to guide teleworkers to greater telework success.

Third, give teleworkers the autonomy they need to manage family stressors. Especially for full-time teleworkers, the interplay between family and work can create tensions. Our results show that family related challenge stressors, in combination with other stressors, can lead to high telework success. In contrast, family related hindrance stressors can lead to low telework success. Because organisations have limited control over family related challenge and hindrance stressors, they should provide teleworkers with structural resources to manage and benefit from family related stressors, such as offering fixed break times when they are not required to respond to phone calls or e-mails.

Fourth, monitor teleworkers' stress levels. Our findings suggest that when teleworkers experience hindrance stressors, concurrently experienced challenge stressors may amplify their detrimental effects on telework success. Organisations should be aware that even for employees who enjoy the challenge of their jobs, when they are exposed to hindrance stressors such as work overload, challenge stressors that should increase satisfaction may have the opposite effect. By monitoring stress levels, organisations can identify circumstances in which hindrance stressors may undermine telework success.

## 4.3 | Limitations and future research

This research has several limitations. We operationalise telework success using satisfaction and performance in the telework environment, which are established measures in telework research (Belanger et al., 2001; Wang & Haggerty, 2011). Although we took steps to limit common method bias, self-perceptual measures such as performance are prone to biases (Hufnagel & Conca, 1994), such that a teleworker's self-perception of performance might

differ from their supervisor's assessment. In calculating telework success, we equally weighted satisfaction and performance in the telework environment. Since theory development is not the primary focus of our empirical study (Kock, 2019), and Study 1 focuses on investigating the interplay among challenge and hindrance stressors in configurations and providing a proof of concept for using dfsQCA to test theory, we did not weight teleworkers' satisfaction and performance differently. We encourage future research to drill down on the composition of telework success based on teleworkers' satisfaction and performance. Also, we did not distinguish survey participants based on where they telework. Future studies should investigate how telework at home with potential contact with family members differs from telework at a hotel or in a coworking space without physical face-to-face contact with family members. We acknowledge that samples of Study 1 and Study 2 include many IT professionals. Given that there are indications that IT professionals are less prone to ICT related stress (Maier et al., 2015), distinguishing between different job roles (e.g., IT professionals vs. non-IT professionals) affords the opportunity to contextualise our study's findings further. We follow the lead of previous studies (Califf et al., 2020; W. Lin et al., 2015) to emphasise challenge and hindrance stressors, relying on broad measures that have been validated and found reliable in extant research (Maier, Laumer, Tarafdar, et al., 2021). Despite that, we recognise that teleworkers can appraise stressors differently under certain circumstances (Rosen et al., 2020). Future research could shed light on different factors, including personality types and previous experience, influencing whether teleworkers appraise specific stressors as challenging or hindering.

Our study suggests promising avenues for telework research. We use condensed measures of ICT, work and family related challenge and hindrance stressors. Future research could build on the distinct stressors we identified in our qualitative study to provide detailed insights into how configurations containing particular stressors influence telework success (see Table 7). While this study explores telework from a stress theoretic perspective, future studies could consider how the characteristics of the identified sources of stress, such as ICT characteristics (Maier et al., 2022), work characteristics (Hackman & Oldham, 1974; Morris & Venkatesh, 2010), and family characteristics (Brown & Venkatesh, 2005) influence telework success. These characteristics could be considered as environmental conditions that influence the experience of challenge and hindrance stressors (Califf et al., 2020) and, consequently, telework success. While this study shows how ICT, work and family related challenge and hindrance stressors explain the work related outcome of telework success, future studies should complement our findings by investigating how challenge and hindrance stressors lead to ICT related outcomes such as ICT satisfaction and family related outcomes such as family life satisfaction.

## 5 | CONCLUSION

Telework is an integral part of many modern work arrangements. This study examined how configurations of challenge and hindrance stressors in the telework environment explain telework success. Drawing on the challenge-hindrance stressor framework, we conducted a mixed methods study combining an innovative deductive configurational approach with a qualitative approach. Our findings provide an explanatory approach for inconsistent findings on the impact of challenge stressors on work related outcomes and show that teleworkers navigate configurations of ICT, work and family related challenge and hindrance stressors that drive telework success.

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## DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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## APPENDIX A: LITERATURE REVIEWS

Table A1 summarises representative research on telework success. We included IS literature from the senior scholars' list of premier journals and eight behaviour research and organisation research journals (Lowry et al., 2004), using the Web of Science Database and the search string (“telework” OR “remote work” OR “telecommuting” OR “virtual work”). We included all studies focusing on outcomes related to telework success from an individual perspective.

TABLE A1 Representative research on telework success.

Reference	Major findings	Theoretical lens	Stressors	Other	Outcome	Focus	Methodology
(Belanger et al., 2001)	Using advanced ICT increases telework success, while communication requirements decrease it.	Contingency Theory	Using advanced ICT, communication requirements	–	Productivity, satisfaction, performance	ICT	Quantitative (linear approach)
(Carillo et al., 2021)	IT simplicity, work autonomy, telework environment and organisational support increase telework adjustment. Work interdependence, stress, work increase and professional isolation decrease it.	Theory of work adjustment	IT simplicity, work autonomy, work interdependence, work increase	Telework environment, organisational support, stress, professional isolation	Telework adjustment	ICT, work	Quantitative (linear approach)
(Chong et al., 2020)	Daily COVID-19 task setbacks (i.e., issues arising from the COVID-19 situation) increase end-of-day emotional exhaustion. This relationship is moderated by task interdependence, such that it is stronger for individuals with high task interdependence. Emotional exhaustion increases next-day withdrawal behaviour for employees with lower organisational telework task support.	Conservation of resources theory	Daily COVID-19 task setbacks, organisational telework task support, task interdependence	Emotional exhaustion	Next-day withdrawal behaviour	Work	Quantitative (linear approach)
(Gajendran et al., 2022)	Text based computer mediated communication influences depletion and motivation maintenance for individuals whose jobs require complex problem solving.	Media synchronicity theory, conservation of resources theory	Asynchronous text based communication	Depletion, negative affect, problem solving	Work goal progress, work engagement	ICT	Quantitative (linear approach)

(Continues)

TABLE A1 (Continued)

Reference	Major findings	Theoretical lens	Stressors	Other	Outcome	Focus	Methodology
(Gajendran & Harrison, 2007)	Telework increases work autonomy and decreases work family conflict. Telework increases job satisfaction and performance while decreasing turnover intention and role stress.	—	Work autonomy, work family conflict	Telework	Job satisfaction, performance, turnover intention, role stress	Work, family	Quantitative (linear approach)
(Golden et al., 2008)	Professional isolation negatively impacts performance and reduces turnover intentions. Thereby, the impact of professional isolation is increased by the time spent teleworking and decreased by face-to-face interactions and access to ICT.	—	—	Amount of time spent teleworking, face-to-face interactions, professional isolation, access to communication enhancing technology	Performance, turnover intention	Work	Quantitative (linear approach)
(Hafermalz & Riemer, 2021)	Client-facing employees can foster a sense of belonging by coping, learning, plotting, and positioning when not co-located. Belonging increases well-being and productivity.	—	—	Coping, learning, plotting, positioning	Sense of belonging, well-being, productivity	ICT	Qualitative
(Kuruzovich et al., 2021)	Extensive telecommuting system use decreases leader-member exchange and perceived organisational support, leading to lower job satisfaction, organisational commitment and job performance. Telecommuting software quality moderates this adverse effect.	Social exchange theory	Extensive telecommuting system use, telecommuting software quality	Organisational support, leader-member exchange	Job satisfaction, organisational commitment, job performance	ICT, work	Quantitative (linear approach)

TABLE A1 (Continued)

Reference	Major findings	Theoretical lens	Stressors	Other	Outcome	Focus	Methodology
(Neufeld & Fang, 2005)	Social interactions with the manager and family, resource availability, and freeness of distractions increase teleworkers' productivity. Family status does not influence productivity.	—	Social interactions with the manager, social interactions with the family	Resource availability, freeness of distractions	Productivity	Work, family	Quantitative (linear approach)
(Shockley et al., 2021)	Supervisors' expectation-setting about communication during telework, communication quality, and communication frequency influence burnout, performance quality, and relationships are moderated by task interdependence.	—	Supervisors' communication expectations	Communication quality, communication frequency	Burnout, performance quantity, performance quality	Work	Quantitative (linear approach)
(Staples et al., 1999)	Remote work self efficacy increases remote work performance, productivity and performance, satisfaction with the management, satisfaction with other job factors, ability to cope, and organisational commitment. It also decreases job stress.	Self efficacy theory	—	Remote work self efficacy	Remote work performance, productivity and performance, satisfaction, ability to cope, organisational commitment, job stress	Work	Quantitative (linear approach)
(Tarafdar & Saunders, 2022)	Blue collar workers have high job demands. They can increase their job resources by drawing on ICT job crafting practices. The ICT mediated match between job demands and resources increases their occupational well-being.	—	Job demands, ICT job crafting practices	Job resources	Occupational well-being	ICT, work	Qualitative

(Continues)

TABLE A1 (Continued)

Reference	Major findings	Theoretical lens	Stressors	Other	Outcome	Focus	Methodology
(van der Meulen et al., 2019)	Temporal and spatial separation reduce the knowledge-sharing frequency, resulting in lower job performance. Using asynchronous communication mitigates the adverse effects of spatial separation on knowledge sharing but increases the negative effect of temporal separation on knowledge awareness.	Media synchronicity theory	Asynchronous communication	Knowledge awareness, temporal and spatial separation, communication media synchronicity	Job performance	ICT, work	Quantitative (linear approach)
(Wang & Haggerty, 2011)	Virtual competence increases job satisfaction and performance.	Social cognitive theory	–	Virtual competence	Performance, satisfaction	ICT	Quantitative (linear approach)

**TABLE A2** Challenge and hindrance stressors in research on telework success.

	ICT		Work		Family	
	Challenge stressors	Hindrance stressors	Challenge stressors	Hindrance stressors	Challenge stressors	Hindrance stressors
(Belanger et al., 2001)	Using advanced ICT	Communication requirements				
(Carillo et al., 2021)	IT simplicity		Work autonomy	Work interdependence, work increase		
(Chong et al., 2020)			Organisational telework task support	Daily task setbacks, task interdependence		
(Gajendran et al., 2022)		Asynchronous text based communication				
(Gajendran & Harrison, 2007)			Work autonomy			Work family conflict
(Kuruzovich et al., 2021)	Telecommuting software quality	Extensive telecommuting system use				
(Neufeld & Fang, 2005)			Social interactions with the manager		Social interactions with the family	
(Shockley et al., 2021)			Supervisors' communication expectations			
(Tarafdar & Saunders, 2022)	ICT job crafting practices			Job demands		
(van der Meulen et al., 2019)	Asynchronous communication					

In Table A3, we summarise representative research using the challenge-hindrance stressor framework. Again, we included IS literature from the senior scholars' list of premier journals and eight behaviour research and organisation research journals (Lowry et al., 2004). We conducted the literature search using the Web of Science Database and the search string (“challenge” AND “hindrance”) OR “challenge-hindrance” OR (“Eustress” AND “Distress”).

**TABLE A3** Representative research using the challenge-hindrance stressor framework.

Reference	Major findings	Stress source	Methodology
(Aw et al., 2020)	Empathetic disposition decreases surface acting and increases authentic emotional displays. Challenge stressors hamper the relationship between empathetic disposition and surface acting and foster the relationship between empathetic disposition and authentic emotional displays. Surface acting increases absenteeism and decreases job satisfaction, while authentic emotional display increases job satisfaction and performance.	Work	Quantitative (linear approach)
(Benlian, 2020)	Technology related challenge stressors increase partnership satisfaction. Technology related hindrance stressors decrease partnership satisfaction.	ICT	Quantitative (linear approach)
(Califf et al., 2020)	Technology related challenge stressors lead to a positive psychological response and increase job satisfaction. Hindrance stressors lead to a negative psychological response and decrease job satisfaction.	ICT	Quantitative (linear approach)
(Cavanaugh et al., 2000)	Challenge related self-reported stress increases job satisfaction and decreases job search. Hindrance related self-reported stress decreases job satisfaction and increases job search and turnover.	Work	Quantitative (linear approach)
(Crawford et al., 2010)	Challenge stressors increase burnout and engagement. Hindrance stressors increase burnout and decrease engagement.	Work	Quantitative (linear approach)
(Ding et al., 2019)	Challenge stressors increase employee creativity, while hindrance stressors decrease it. Task oriented enterprise social networking use positively moderates the influence of challenge and hindrance stressors on employee creativity. Relationship oriented enterprise networking use negatively moderates the influence of hindrance stressors on employee creativity.	Work	Quantitative (linear approach)
(Du et al., 2019)	For employees with high job control, challenge stressors have a u-shaped effect on creative process engagement, i.e., challenge stressors have an initial negative influence on creative process engagement that turns positive when challenge stressors become very high. For employees with high job control, hindrance stressors decrease creative process engagement.	Work	Quantitative (linear approach)
(Kraimer et al., 2022)	Travel related challenge stressors increase thriving at work, while travel related hindrance stressors increase burnout and work family conflict.	Travel	Quantitative (linear approach)
(Lepine et al., 2005)	Challenge stressors increase strains, motivation and performance. Hindrance stressors increase strains and decrease motivation and performance.	Work	Quantitative (linear approach)

TABLE A3 (Continued)

Reference	Major findings	Stress source	Methodology
(LePine et al., 2004)	Stress associated with challenges increases learning performance, and stress associated with hindrances decreases learning performance. The two forms of stress increase exhaustion, and exhaustion decreases learning performance. Hindrance stress decreases motivation to learn, challenge stress increases the motivation to learn, and motivation to learn increases learning performance.	Education	Quantitative (linear approach)
(Lepine et al., 2016)	Charismatic leaders decrease the negative effect of hindrance stressors on task performance.	Work	Quantitative (linear approach)
(Lu et al., 2016)	Challenge stressors increase job performance, while hindrance stressors decrease it. General self efficacy fosters the relationship between challenge stressors and job performance but does not influence the relationship between hindrance stressors and job performance.	Work	Quantitative (linear approach)
(Maier, Laumer, Tarafdar, et al., 2021)	Technology related challenge stressors lead to technology related challenge appraisal and increase routine use and innovative use. Technology related hindrance stressors lead to technology related hindrance appraisal and decrease routine use and innovative use.	ICT	Quantitative (linear approach with post hoc configurational approach)
(Nielsen et al., 2022)	Challenge stressors increase perceived organisational support, while hindrance stressors decrease it. The relationship between challenge stressors and perceived organisational support is stronger for employees with a proactive personality, and the relationship between hindrance stressors and organisational support is also stronger for employees with a proactive personality. Organisational support decreases emotional exhaustion and turnover intentions.	Work	Quantitative (linear approach)
(Pearsall et al., 2009)	Challenge stressors increase team performance and transactive memory. Hindrance stressors decrease team performance and transactive memory and increase psychological withdrawal. Findings indicate that combined challenge and hindrance stressors amplify the adverse effect of hindrance stressors.	Work	Quantitative (linear approach)
(Podsakoff et al., 2007)	Challenge and hindrance stressors cause strains. Challenge stressors increase job satisfaction and organisational commitment and decrease turnover. Hindrance stressors decrease job satisfaction and organisational commitment and increase turnover.	Work	Quantitative (linear approach)
(Rodell & Judge, 2009)	Challenge stressors increase attentiveness and anxiety. Hindrance stressors increase anxiety and anger. Attentiveness increases citizenship behaviour, while anxiety decreases citizenship behaviour. Anxiety and anger increase counterproductive behaviours.	Work	Quantitative (linear approach)
(Rosen et al., 2020)	Challenge stressors positively influence employees when they are stable across time periods and negatively influence them when they vary across time periods.	Work	Quantitative (linear approach)

(Continues)

TABLE A3 (Continued)

Reference	Major findings	Stress source	Methodology
(Sessions et al., 2020)	Group promotive voice as a challenge stressor decreases supervisors' emotional exhaustion, and group prohibitive voice as a hindrance stressor increases supervisors' emotional exhaustion. Emotional exhaustion decreases supervisors' performance.	Work	Quantitative (linear approach)
(Shi et al., 2023)	ICT related challenge stressors decrease time and strain based work family conflict, while ICT related hindrance stressors increase it. Time and strain based work family conflict decrease job and family satisfaction.	ICT, family	Quantitative (linear approach)
(Tarafdar et al., 2019)	Technology related stress can lead to positive outcomes. The positive and negative effects of technology related stress might be influenced by technology design.	ICT	Conceptual
(Ventura et al., 2015)	Professional self efficacy increases the perception of challenge stressors and decreases the perception of hindrance stressors. Challenge stressors foster engagement and do not influence burnout. Hindrance stressors hinder engagement and foster burnout.	Work	Quantitative (linear approach)
(Wallace et al., 2009)	Challenge stressors increase role based performance, and hindrance stressors decrease role based performance. Organisational support moderates the relationship between challenge stressors and role based performance.	Work	Quantitative (linear approach)
(Zhang et al., 2014)	Challenge and hindrance stressors increase exhaustion, causing counterproductive behaviour. Hindrance stressors decrease organisational justice moderated by transactional leadership. Organisational justice increases task performance, helping behaviour, voice behaviour, and creative behaviour, and decreases counterproductive behaviour.	Work	Quantitative (linear approach)
(Zhang et al., 2019)	Challenge stressors increase promotion focused coping and decrease prevention focused coping. Hindrance stressors decrease promotion focused coping and increase prevention focused coping. Promotion focused coping fosters, among others, task performance and well-being, while prevention focused coping hinders them.	Work	Quantitative (linear approach)
(Zhao et al., 2020)	ICT related stressors appraised as challenges lead to problem focused coping and increased productivity. ICT related stressors appraised as hindrances lead to emotion focused coping and decreased productivity.	ICT	Quantitative (linear approach)

Table A4 provides an overview of representative IS research using fsQCA. We included IS literature from the senior scholars' list of premier journals, searching for literature in the Web of Science Database using the search string ("QCA "OR "fsQCA "OR "qualitative comparative analysis").

**TABLE A4** Representative IS research using fsQCA.

Reference	Study design	Research context	Outlet
(Anton et al., 2022)	Literature review	Research agenda for IS research using QCA	Information & Management
(Fedorowicz et al., 2018)	Inductive	Networked governance	Journal of Information Technology
(Iannacci et al., 2022)	Conceptual (retroductive)	QCA counterfactual approach considering retrodution	Information Systems Journal
(Iannacci & Cornford, 2018)	Inductive	IS Success	Information Systems Journal
(Koo et al., 2019)	Inductive	IT sourcing strategy	Journal of Strategic Information Systems
(Kourouthanassis et al., 2017)	Inductive	Online information search	Information & Management
(Lee, 2022)	Inductive	Sharing economy	Decision Support Systems
(Lee et al., 2019)	Abductive	IT sourcing strategy	Management Information Systems Quarterly
(Lin et al., 2023)	Inductive	E-commerce capabilities	European Journal of Information Systems
(Liu et al., 2017)	Inductive	IS use	Information Systems Journal
(Maier, Laumer, Joseph, et al., 2021)	Retroductive	IT professionals	Management Information Systems Quarterly
(Maier, Laumer, Tarafdar, et al., 2021)	Inductive (post hoc)	IS use	Journal of the Association for Information Systems
(Mattke, Maier, Reis, & Weitzel, 2021)	Abductive	Cryptocurrencies	European Journal of Information Systems
(Mattke et al., 2020)	Abductive	IS use	Information & Management
(Mikalef & Krogstie, 2020)	Inductive	Big data analytics	European Journal of Information Systems
(Park & Mithas, 2020)	Abductive	Digital business strategy	Management Information Systems Quarterly
(Park et al., 2017)	Abductive	Organisational Agility	Journal of the Association for Information Systems
(Park, Fiss, & El Sawy, 2020)	Conceptual (inductive and deductive)	Guidelines for using fsQCA	Management Information Systems Quarterly
(Park, Pavlou, & Saraf, 2020)	Abductive	Organisational ambidexterity	Information Systems Research
(Stanko, 2016)	Inductive	Online innovation communities	Information Systems Research
(Tuo et al., 2019)	Inductive	Crowdfunding	Decision Support Systems

**APPENDIX B: STUDY 1****B.1 | MEASUREMENT ITEMS**

**TABLE B1** Measures for stressors and outcome.

Construct	Measure	Loading
ICT related challenge stressors (Maier, Laumer, Tarafdar, et al., 2021)	I have to complete a lot of work using ICT.	0.78
	I have to work very hard using ICT.	0.85
	I have to work with very tight time schedules using ICT.	0.78
	I have to work at a rapid pace to complete all of my tasks using ICT.	0.81
	I have to perform complex tasks using ICT.	0.83
	I have to use a broad set of ICT-related skills and abilities.	0.84
	I have to balance several projects/tasks that require ICT use.	0.76
	I have to multitask assigned projects/tasks that require a lot of ICT use.	0.76
ICT related hindrance stressors (Maier, Laumer, Tarafdar, et al., 2021)	I have high levels of ICT responsibilities.	0.75
	I have several hassles using ICT (e.g., system breakdown, software updates).	0.77
	I have constraints to complete my work using ICT (e.g., missing features, delays).	0.77
	I have unclear instructions from my bosses on how to use ICT.	0.77
	I have to deal with unclear ICT features.	0.86
	I have conflicts using ICT.	0.88
	I have inadequate ICT resources to accomplish tasks.	0.81
Work related challenge stressors (Lepine et al., 2016)	I have conflicts with peers about using ICT.	0.79
	I have disputes with co-workers about using ICT.	0.77
	I have to complete a lot of work.	0.74
	I have to perform complex tasks.	0.84
	I have to use a broad set of skills and abilities.	0.84
Work related hindrance stressors (Lepine et al., 2016)	I have high levels of responsibility.	0.81
	I have a high level of accountability for my work.	0.84
	I have conflicting instructions and expectations from my boss or bosses.	0.86
	I have unclear job tasks.	0.85
	I have conflicting requests from my supervisor(s).	0.88
Family related challenge stressors (adapted from ICT and work related challenge stressors)	I have inadequate resources to accomplish tasks.	0.71
	I have conflicts with peers.	0.81
	I have disputes with co-workers.	0.78
	I have a lot of things to do in my family (e.g., child care, household management).	0.87
	I have to exert myself to get the things in my family done.	0.76
	I have very tight time schedules to get everything done in my family.	0.86
	I have to do the things for my family at a rapid pace to get everything done.	0.78
Family related hindrance stressors (adapted from ICT and work related hindrance stressors)	I have to do demanding things in my family.	0.79
	I have to balance several things at once in my family to get everything done.	0.84
	I have to multitask to get everything done in my family.	0.83
	I have to do pointless and counterproductive things in my family.	0.83
	There are times when I do not understand the instructions and expectations from my family.	0.82
	I have conflicting requests from my family.	0.86

TABLE B1 (Continued)

Construct	Measure	Loading
	I have inadequate support from family members or inadequate financial resources to do the things in my family.	0.82
	I have conflicts with family members.	0.84
	I have disputes with family members.	0.84
Performance (Belanger et al., 2001)	My telework environment allows me to meet the expectations of my supervisor in performing my job.	0.86
	My telework environment allows me to do high quality work.	0.91
	My telework environment allows me to complete work in a timely and effective manner.	0.88
	My telework environment allows me to improve my overall work performance.	0.85
Satisfaction (Belanger et al., 2001)	My telework environment allows me to get help from coworkers when needed.	0.93
	My telework environment allows me to get help from my supervisor when needed.	0.92
	My telework environment allows me to feel as if I belong to the office team.	0.91

TABLE B2 Truth table for high telework success.

IC	IH	WC	WH	FC	FH	TS	Number	Raw consistency	PRI
1	0	1	0	0	0	1	84	0.94	0.91
1	0	1	0	1	0	1	108	0.91	0.87
1	0	1	0	1	1	1	22	0.90	0.75
1	1	1	0	0	0	0	3	0.93	0.63
1	0	1	0	0	1	0	5	0.92	0.73
1	0	1	1	0	0	0	10	0.88	0.57
0	0	1	0	0	0	0	6	0.88	0.52
0	0	1	0	1	0	0	5	0.88	0.48
0	0	1	1	0	0	0	3	0.88	0.29
1	0	1	1	1	0	0	11	0.87	0.61
1	1	1	0	1	0	0	10	0.87	0.55
0	0	1	1	1	1	0	3	0.87	0.19
1	1	1	1	0	0	0	7	0.86	0.32
0	0	0	0	0	0	0	3	0.85	0.26
1	0	1	1	1	1	0	11	0.82	0.38
1	1	1	1	1	0	0	22	0.75	0.21
1	1	1	1	1	1	0	32	0.62	0.09

Note: 'IC' indicates ICT related challenge stressors, 'IH' indicates ICT related hindrance stressors, 'WC' indicates work related challenge stressors, 'WH' indicates work related hindrance stressors, 'FC' indicates family related challenge stressors, 'FH' indicates family related hindrance stressors, and 'TS' indicates high telework success.

## B.2 | SAMPLE SIZE

QCA recommendations suggest a sample size that maintains a conditions to observations ratio of less than 0.20 (Marx, 2010). By examining six conditions with 375 observations, we obtained a ratio of 0.02, suggesting the sample size is adequate.

## B.3 | COMMON METHOD BIAS

We applied Harman's single-factor test, which shows the proportion of data explained by only one factor, to test for common method bias (CMB). It showed that the strongest single factor only explains 28.93 percent of the variance, which is considerably lower than the recommended 50% threshold. Additionally, all correlations in the correlation matrix are below the threshold of 0.9 (Pavlou et al., 2007), suggesting, again, that common method bias is no issue.

## B.4 | fSQCA

### B.4.1. | Calibration

In line with extant QCA research (Liu et al., 2017; Park et al., 2017), we calculated the mean of each construct and used direct calibration to compute the mean values to fuzzy set memberships (Ragin & Davey, 2016). We used the value two of the seven-point scale for full-non-membership, the mean value four for the cross-over point, and the value six for full membership as anchors to calibrate the mean values. We applied this calibration to the conditions and the outcome. For telework success, we first calculated the mean of satisfaction and performance when teleworking and subsequently calibrated the mean of this construct as a representative value.

**TABLE B3** Truth table for low telework success.

IC	IH	WC	WH	FC	FH	TS	Number	Raw consistency	PRI
0	0	1	1	1	1	1	3	0.97	0.81
1	1	1	1	1	1	1	32	0.93	0.84
1	1	1	1	1	0	1	22	0.92	0.75
0	0	1	1	0	0	0	3	0.95	0.69
0	0	0	0	0	0	0	3	0.95	0.73
1	1	1	1	0	0	0	7	0.93	0.67
0	0	1	0	1	0	0	5	0.89	0.50
1	0	1	1	1	1	0	11	0.89	0.62
1	1	1	0	0	0	0	3	0.88	0.37
0	0	1	0	0	0	0	6	0.87	0.47
1	1	1	0	1	0	0	10	0.84	0.45
1	0	1	1	0	0	0	10	0.83	0.37
1	0	1	1	1	0	0	11	0.80	0.39
1	0	1	0	0	1	0	5	0.78	0.25
1	0	1	0	1	1	0	22	0.69	0.25
1	0	1	0	0	0	0	84	0.44	0.08
1	0	1	0	1	0	0	108	0.41	0.11

Note: 'IC' indicates ICT related challenge stressors, 'IH' indicates ICT related hindrance stressors, 'WC' indicates work related challenge stressors, 'WH' indicates work related hindrance stressors, 'FC' indicates family related challenge stressors, 'FH' indicates family related hindrance stressors, and 'TS' indicates low telework success.

#### B.4.2. | Analysis for necessary conditions

We tested for necessary conditions. A condition is defined as necessary if its consistency exceeds the recommended thresholds for consistency (0.90), coverage (0.60) and relevance of necessity (0.60) (Thomann et al., 2018). The consistency explains to which degree teleworkers with the same conditions share the same outcome (Ragin, 2008). The coverage describes the degree of data covered by a specific condition. The relevance of necessity outlines how relevant it is as a necessary condition. A low relevance of necessity suggests that a condition is rather trivial, and a high relevance of necessity suggests it is highly relevant. We avoid trivial necessary conditions by considering the coverage and relevance of necessity (Ragin, 2006).

#### B.4.3. | Analysis for sufficient configurations

A configuration of high or low conditions that lead to an outcome is described as sufficient configuration. We analysed sufficient configurations for high and low telework success. We first created a truth table listing all possible combinations of conditions and outcomes to test for sufficient configurations. The truth table consisted of  $2^k$  configurations, with  $k$  reflecting the number of conditions. As we investigated six conditions, the truth table for this study contained 64 logically possible combinations. We applied a frequency threshold of three to reduce this truth table, which is commonly used in IS research (Liu et al., 2017; Mattke, Maier, Reis, & Weitzel, 2021) and in line with the recommendations from QCA literature (Mattke, Maier, Weitzel, & Thatcher, 2021; Ragin, 2007). This removed all combinations with less than three observations from the truth table (see Tables B2 and B3). Additionally, we used a raw consistency threshold of 0.85, which is higher than the minimum raw consistency threshold of 0.75 and leads to more reliable results (Ragin, 2008). It determines the minimum degree of how consistent the configurations of conditions need to be to lead to high telework success. We then evaluated the proportional reduction of inconsistency (PRI). We removed solutions with PRI values lower than the threshold of 0.75 (Leppänen et al., 2019), so that we avoided solutions that predict a high and low outcome. We used the Quine McCluskey algorithm to simplify the remaining truth table and so create sufficient configurations. By applying this algorithm, 'don't care situations' may emerge, meaning that a condition can be high or low in a sufficient configuration and consequently is irrelevant to the outcome in this configuration.

#### B.5 | ROBUSTNESS OF THE RESULTS

We tested the solutions for high and low telework success for sensitivity to sample (Maggetti & Levi-Faur, 2013; Schneider & Wagemann, 2010) and sensitivity to calibration. We increased the frequency threshold to four to test for sensitivity to the sample, meaning combinations with less than four observations were dropped. The repeated analyses showed substantially the same results, so we attested the robustness of the solutions for high and low telework success. We used different anchors to test for sensitivity to calibration (minimum value = 1; mean value = 4; maximum value = 7). The solutions again revealed substantially the same result, which shows the robustness of the solutions.

**TABLE B4** Validation of quantitative inferences.

Category of validity	Validation
Design validity	We adapted the constructs from previous research (see Appendix B; Table B1). The sample size is sufficient (see Appendix B). We based our research on the challenge-hindrances stressor framework (Lepine et al., 2005) to ensure internal validity and used a highly generalizable design to ensure external validity. We ensured common method bias is no issue (see Appendix B).
Measurement validity	We ensured that there are no issues with content validity, indicator reliability, construct reliability, and discriminant validity. We showed that the results are robust to adaptations in calibration anchors and frequency threshold (Park, Fiss, & El Sawy, 2020) (see Appendix B).
Inferential validity	We obtained reliable and robust solutions due to high consistency and frequency thresholds (Schneider & Wagemann, 2010).

**APPENDIX C: STUDY 2****TABLE C1** Interview guideline for step one of Study 2.

Section	Description
Opening	<ul style="list-style-type: none"> <li>• Introduction of the interviewer</li> </ul>
Introduction	<ul style="list-style-type: none"> <li>• Explanation of the interview procedure and the reason for the interview</li> <li>• Do you currently telework (home office/distance working/remote working)?</li> </ul>
Key questions	<ul style="list-style-type: none"> <li>• What stresses you about telework?</li> <li>• Do you feel challenged or constrained by this?</li> <li>• What hindrances or impediments affect you when teleworking?</li> <li>• What challenges are there that motivate you while teleworking?</li> </ul>
Closing	<ul style="list-style-type: none"> <li>• Gathering personal information about the interviewee (age, biological sex, profession)</li> <li>• Ask for further teleworkers that we could interview ("Snowballing")</li> </ul>

**TABLE C2** Interview guideline for step two of Study 2.

Section	Description
Opening	<ul style="list-style-type: none"> <li>• Introduction of the interviewer</li> </ul>
Introduction	<ul style="list-style-type: none"> <li>• Explanation of the interview procedure and the reason for the interview</li> <li>• Do you currently telework (home office/distance working/remote working)?</li> </ul>
Key questions	<ul style="list-style-type: none"> <li>• Presentation and explanation of the empirically identified configurations for high and low telework success</li> <li>• Are the results conclusive and understandable to you?</li> <li>• What type of teleworker do you classify yourself as? Why?</li> <li>• Please describe in detail the stressors that are relevant to you when teleworking.</li> <li>• Please explain how these stressors influence your telework success in terms of satisfaction and performance when teleworking.</li> </ul>
Closing	<ul style="list-style-type: none"> <li>• Gathering personal information about the interviewee (age, biological sex, profession)</li> <li>• Ask for further teleworkers that we could interview ("Snowballing")</li> </ul>

TABLE C3 Coding scheme example.

Exemplary quotations	Descriptive coding	Interpretive coding	Category
<p>"The tools we use for telework, for instance, Zoom, allow me to do several things at once. For example, I often answer emails during virtual meetings. This is sometimes a bit exhausting, but helps me keep my desk empty, so to speak."</p> <p>"We now use Microsoft Teams for many meetings, which allows me to take part in several consecutive meetings without having to physically change offices. Of course it can be stressful, but I do not have to miss out on information."</p> <p>"The introduction of telework forced us to use new collaboration tools. For example, in large virtual training sessions, we use a kind of virtual whiteboard on which all participants can work together. Of course, it is exhausting to deal with new tools all the time, but it also offers great opportunities to enhance collaboration."</p> <p>"Sometimes my Internet connection at home gets disrupted, so I miss out on important information in a Zoom session. This is really annoying, and I always have to waste a lot of time catching up on everything that was discussed on the call."</p> <p>"I have only one screen in the home office, which is really annoying. I just lack space on the screen and often have to switch between applications."</p> <p>"We use both Microsoft Teams and Zoom for virtual meetings, although they serve the same purpose. Sometimes we schedule a meeting via Teams, other times we use Zoom. I find this constant back and forth between tools totally unnecessary. Sometimes I open the wrong tool and wonder why I cannot see the meeting or why there's no one there but me. I do not understand why we do not just pick one tool and everyone uses that."</p> <p>"I am involved in multiple projects now, which is only possible because I can work very flexibly due to teleworking. That motivates me because I get more work done."</p> <p>"My job is really challenging, and no project is like the other. When I am teleworking, I also have more freedom in scheduling my day. For instance, I can work on complex tasks when I can concentrate best, which helps me get challenging projects done."</p> <p>"I work on several projects at the same time, primarily with dislocated team members, and I am also responsible for a large share of the projects. That's what I like about my job."</p> <p>"My organisation has this policy that allows everyone to work from home some days per week. But my boss hates when we do that, so every time I work from home, I have the impression that he thinks I'm not working. That bothers me a lot, and I think it's bad for the motivation of the whole team."</p>	<p>ICT enables completing multiple tasks at the same time</p> <p>Using ICT to meet tight time schedules</p> <p>Learning to use new ICT for collaboration</p> <p>Experiencing connection problems</p> <p>Provided ICT for telework are inadequate</p> <p>Unclear instructions on which tool to use for which task</p> <p>Completing more work tasks</p> <p>Working on complex projects</p> <p>Responsible for projects with teleworkers</p> <p>Different instructions from supervisors</p>	<p>ICT enabled multitasking</p> <p>ICT enabled work pace</p> <p>Use of ICT related skills</p> <p>ICT hassles</p> <p>Inadequate ICT resources</p> <p>Unclear ICT instructions</p> <p>Workload</p> <p>Work complexity</p> <p>Work responsibility</p> <p>Conflicting supervisor requests</p>	<p>ICT related challenge stressors</p> <p>ICT related hindrance stressors</p> <p>Work related challenge</p> <p>Work related hindrance stressors</p>

(Continues)

TABLE C3 (Continued)

Exemplary quotations	Descriptive coding	Interpretive coding	Category
"Since I started working from home, I have frequent disputes with some of my colleagues that do not like telework. For instance, a colleague once insinuated 'who knows how much people work in the home office:'"	Disputes with colleagues	Work conflicts	
"Every now and then I have to do work that no one wants to do, just because I'm not in the office to dodge it fast enough. For example, keeping some stupid lists up to date that I do not even know why we need them."	Relevance of work tasks unclear	Unclear work tasks	
"Telework helps me to do something for my kids besides work. For example, I can quickly take the kids to daycare and back home without having to drive home from work first. Or quickly start the washing machine is also easily possible when teleworking. That makes telework satisfying to me and also helps me to structure my day in a more efficient way."	Schedule work around family activities	Family duties	Family related challenge stressors
"I often have to look after my child or take care of other family matters while I work [from home], but it's nice to be with my family even when working."	Child care while teleworking	Family related multitasking	
"I mean, I have a young daughter at home, and I really enjoy that I can keep an eye on her when I work from home. I think that also helps me perform better because I try to be a good example for her."	Responsibility for family member	Family responsibility	
"When you are at home with a family and a small child, it's exhausting. Our apartment is too small, and I have to change my workplace frequently because someone else needs the room I use for telework."	Interruption from family members	Inadequate family support	Family related hindrance stressors
We only have one proper desk at home, and we often argue about who gets to sit at that desk when we both work at home.	Disputes with family members	Family conflicts	
"I have a small boy, and my wife often interrupts me when I telework to take care of him. That keeps me from concentrating on my work."	Obligated family work during telework	Family hassles	

TABLE C4 Findings of the post hoc analysis.

Sufficient configuration	Statements from the interviews
H1	<ul style="list-style-type: none"> <li>“I work a lot while I am in virtual meetings. Like answering mails or working on other tasks on the side for which I do not have to think much. For example, developing a small script or something. This, of course, increases the performance a lot, so what can be done during the day. And that also makes me more satisfied.” (<i>ICT related challenge stressors</i>)</li> <li>“I do not experience any hindrances about the ICT. The equipment we got from the company is good, and everything works as it should.” (<i>no ICT related hindrance stressors</i>)</li> <li>“Telework allows me to work on complex topics at home without being distracted. I think that's a big advantage that you do not have in the office.” (<i>work related challenge stressors</i>)</li> <li>“I do not really have work related hindrances. Everything is quite relaxed, communication is fine, and my manager thinks that my colleagues and I do a good job when teleworking.” (<i>no work related hindrance stressors</i>)</li> <li>“I really appreciate being able to do certain household chores in between. For example, washing clothes or cooking food. That motivates me a lot, so it increases my satisfaction, and it simply helps me structure my day better and professionally and privately-to achieve more.” (<i>family related challenge stressors</i>)</li> <li>“Hindrances from my family are not an issue. My partner has her own workspace for telework, so we do not interrupt each other or anything.” (<i>no family related hindrance stressors</i>)</li> </ul>
H2	<ul style="list-style-type: none"> <li>“You can actually do many things in parallel during virtual meetings that you cannot do in a face-to-face meeting. It's a challenge that makes me feel like I get more done in a day.” (<i>ICT related challenge stressors</i>)</li> <li>“In the beginning, when every employee started teleworking at the same time, we had some minor connection issues and delays. In the meantime, however, all this is no longer an issue, and the ICT works well.” (<i>no ICT related hindrance stressors</i>)</li> <li>“With telework, it is now possible for us to schedule our appointments more flexibly. For example, I prefer to have my appointments in the evening, which also makes meetings with colleagues from Portugal or the USA easier. That wasn't possible before because I did not want to be in the office at that time. Of course, this allows me to work on new tasks and take on more responsibility.” (<i>work related challenge stressors</i>)</li> <li>“Hindrances at work have never really been an issue for me. My manager also tells us that he sees the work we do in the home office.” (<i>no work related hindrance stressors</i>)</li> <li>“For example, I can vacuum during my lunch break, or start the washing machine during a meeting. I think that's very good. It allows me to structure my day better.” (<i>family related challenge stressors</i>)</li> <li>“Fortunately, I do not have any obstacles at home or with my family. That is very important to me, and I think it would hinder telework a lot.” (<i>no family related hindrance stressors</i>)</li> </ul>
L1	<ul style="list-style-type: none"> <li>“We have a lot of discussions and team meetings in which I can often only contribute little. The rest of the time it's good to listen in, but you can still do some work on the side. While I think that's generally a good thing, we often have issues with virtual meetings like poor connections, which kind of reverses the benefits for me. I then have to make an extra effort to reconnect to the meeting and catch up on the missed information, which I find really disturbing.” (<i>ICT related challenge stressors</i>)</li> <li>“The Internet connection of my manager is very bad. All virtual meetings with him are a real pain.” (<i>ICT related hindrance stressors</i>)</li> <li>“Since we started to create more virtual content for our clients because they also work from home, I worked on a lot of new tasks. That said, all the work hindrances, like the never-ending meetings that lead nowhere, really outweigh the upside of the new tasks. Somehow I feel like I'm just sitting in nonsense meetings all the time.” (<i>work related challenge stressors</i>)</li> <li>“Since we started teleworking, we have had a lot more and longer meetings, and most of them are quite useless to me, which makes me really dissatisfied with telework. Like people would tell random stories that drag the meeting out and are just annoying.” (<i>work related hindrance stressors</i>)</li> <li>“In general, it is, of course, nice that telework allows me to spend time with my family when working.” (<i>family related challenge stressors</i>)</li> <li>“That said, my wife often interrupts me when I telework to take care of our little son. That keeps me from concentrating on my work.” (<i>family related hindrance stressors</i>)</li> </ul>

(Continues)

TABLE C4 (Continued)

Sufficient configuration	Statements from the interviews
L2	<ul style="list-style-type: none"> <li>“Everything works quite well, but I would not say that it challenges me or anything. I just use the ICT the same way I did in the office, nothing challenging or hindering about it.” (<i>no ICT related challenge and hindrance stressors</i>)</li> <li>“My job is quite challenging, and generally, I enjoy that about it. For instance, I often present our work to clients. Since we introduced telework in our organisation, I have had even more contact with my clients because virtual meetings are way more efficient than in-person meetings. However, while I still like that part of my job, I cannot really appreciate it as much anymore since so many other things start to annoy me about my job, such as the ongoing disputes with my manager.” (<i>work related challenge stressors</i>)</li> <li>“There are just so many misunderstandings with my manager when we both telework. Often about something stupid like he would accuse me that I did not update the shared files or anything, which I did.” (<i>work related hindrance stressors</i>)</li> <li>“Of course, I would also try to use the additional time at home to spend some more time with my partner and support him. While it can be nice to spend some more time with each other, it overall just really annoys me that we are almost sitting on each other's lap when teleworking.” (<i>family related challenge stressors</i>)</li> <li>“It's just so stressful when you work in the same room and interrupt each other's work all the time. To be honest, that kind of makes me not appreciating spending the time with my partner as much.” (<i>family related hindrance stressors</i>)</li> </ul>

TABLE C5 Validation of qualitative inferences.

Category of validity	Validation
Design validity	<p>We ensured descriptive validity by a detailed description of the research process.</p> <p>We ensured credibility and transparency by a sufficiently large sample (Sarker et al., 2013).</p> <p>We ensured transferability by using an established theory.</p>
Analytical validity	<p>We based the interview structure on the challenge-hindrance stressor framework (Lepine et al., 2005) to ensure theoretical validity.</p> <p>We used a semi-structured approach that leaves room for unforeseen questions while preserving consistency within the structure.</p>
Inferential validity	<p>We mirrored answers back to participants to ensure a correct understanding and, thus, increase interpretative validity.</p> <p>We applied descriptive and interpretive techniques in coding the responses (Myers, 2019).</p>

## APPENDIX D: QUALITY OF META-INFERENCES

TABLE D1 Quality of meta-inferences.

Category of validity	Validation
Design quality	We used a mixed methods design based on appropriate methods (dfsQCA and interviews) to answer the research question. We conducted the methods with quality and rigour (Myers, 2019; Schneider & Wagemann, 2010).
Explanation quality	We triangulated the quantitative and qualitative inferences to identify reliable meta-inferences on how ICT, work and family related challenge and hindrance stressors lead to telework success. The convergent and complementary results complete the holistic understanding of telework success.
Legitimation of meta-inferences and potential threats and remedies	Weakness minimization: We complemented the configurational results with fine-grained insights from interviews. Multiple validity: We separately validated Study 1, Study 2 and the mixed methods approach. Political validity: We drew meta-inferences based on the triangulation of the quantitative and qualitative study to answer the research question.