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Impact of Remote Work on Employee Productivity and Work-Life Balance

A Quantitative Study Examining Personal Boundary-Setting Strategies and
Organizational Support in Remote Work Environments

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ABSTRACT :

The thesis explores the relationship between personal boundary-setting strategies and organizational support to employee productivity and work-life balance in the context of remote work. Based on Boundary Theory (Nippert-Eng, 1996; Clark, 2000), and Conservation of Resources (COR) Theory (Hobfoll, 1989), a quantitative, cross-sectional survey was sent to 90 remote and hybrid workers in various industries and countries. The analysis of the data was done by descriptive statistics, Pearson correlation analysis and hierarchical multiple regression in IBM SPSS Statistics (Version 27). Results indicate that organizational support is the strongest and statistically significant predictor of employee productivity ($\beta = .627, p < .001$) and work-life balance ($\beta = .498, p < .001$), explaining about 29–30% of the incremental variance in both outcomes over and above the variance explained by the demographic variables. There was a significant bivariate relationship between personal boundary-setting strategies and work-life balance ($r = .445, p < .001$) but this was not found to be significant in regression models after controlling for organizational support. There was no significant association between the bivariate nor regression analysis for boundary-setting strategies and employee productivity. The findings corroborate what COR Theory predicts that institutional condition resources are the most important factors in determining remote work outcomes and indicate that individual coping strategies are dependent on the organizational resource environment, but not independently so. Formal remote work policies are recommended, along with enhanced communication skills for managers and active employee recovery time protection.

KEYWORDS: remote work, employee productivity, work-life balance, boundary-setting strategies, Organizational support, Conservation of Resources Theory, Boundary Theory

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1 Introduction

1.1 Background of Study

The first half of the twenty-first century was marked by a slow yet steady increase in the number of flexible work arrangements in organizations all over the world. Remote work, a privilege that was previously seen as the prerogative of a small group of knowledge workers, became a common practice in organizations long before the COVID-19 pandemic increased its use. However, the pandemic was the catalyst like never before. Since the beginning of 2020, millions of workers in industries and continents were forced to work at home overnight, and in many cases, without proper infrastructure, policy support, or previous experience (Galanti et al., 2021). What used to be a selective arrangement was in a few weeks the prevailing form of employment of vast masses of the world labor force. This imposed and sudden shift produced a massive amount of scholarly research.

Researchers of organizational behavior, human resource management, occupational psychology, and strategic management focused on the phenomenon of remote work and tried to comprehend its complex impact on both employees and organizations. But the evidence that is building up is a very ambivalent one. A coherent body of literature records actual productivity benefits linked to remote work, which are explained by the fact that commuting time is eliminated, fewer distractions in offices are reduced, and employees have more freedom to organize their working day (Galanti et al., 2021; Grenčíkova et al., 2024; Fathima, 2025). However, there is also a parallel strand, which points to serious risks: increased psychological stress, weakening of professional and personal life boundaries, loss of social contact with colleagues, and disintegration of the team (Adisa et al., 2022; Pensar and Rousi, 2023; Naithani, 2025).

The implication of this difference in results is not that remote work is necessarily either good or bad, but that the effects of remote working are strongly contingent on the conditions in which it is exercised, both the strategies that individual employees follow and the support that their organizations offer. This is the main point of inspiration of the current thesis. The topicality of the subject matter goes far beyond the pandemic time.

The experience of different geographic and industry settings, such as Malaysia (Rahman and Sing, 2024), the Gulf region (Rañeses et al., 2022), Scandinavia (Pensar and Rousi, 2023), and higher education institutions in Eastern Europe (Staniec et al., 2023) all point to the fact that hybrid and remote working arrangements have become structural aspects of the modern labor market and not just a short-term emergency solution. Technology, finance, consultancy and professional services are major multinational organizations that have institutionalized flexible work as a long term strategy. The scholarly study of the results of remote work is thus not merely of academic importance but has urgent practical implications to human resource practitioners, organizational designers and policymakers.

1.2 Research Problem and Motivation

Although the available literature is extensive, there is still a gap in the literature that has not been well addressed: researchers have reported that remote work has an impact on productivity and work-life balance, yet the research area has not yet developed a sufficiently integrated concept of why and how these impacts are determined. In particular, the processes through which employees proactively cope with the requirements of remote work and the contribution of organizational support to facilitating or limiting these processes have not been sufficiently theorized and empirically studied (Adisa et al., 2022; Grenčíková et al., 2024).

This paper is devoted to two outcomes that are not only important in practice but also interdependent on each other, namely, employee productivity and work-life balance. These two dimensions deserve specific attention due to a certain reason. Remote work essentially changes the spatial and time distance between professional and personal life. Since the employees are at home, the physical line that used to separate work and non-work does not exist anymore. Such a lack of boundaries puts the two concepts in a state where productivity and work-life balance are mutually involved: when employees are unable to define the boundary between working and non-working hours, they often complain that work-related activities interfere with personal and family time, resulting in a lack of recovery, increased stress, and, eventually, worse work performance (Pensar

and Rousi, 2023; Adisa et al., 2022). On the other hand, workers who manage to guard individual time and conserve sustainable habits are more likely to maintain elevated degrees of concentration and production at work (Galanti et al., 2021). The analysis of these two results together, as opposed to separately, therefore provides a more realistic view of the remote work experience than either of the variables does.

To describe the process of the formation of these results, this paper concentrates on two explanatory factors that can be identified as the most prominent in the literature, and which have not been researched together. The former is personal boundary-setting strategies: behavioral, temporal, and spatial strategies that employees employ to establish and maintain a significant difference between work and personal life in the workplace when working at home. Some of the examples are keeping certain working hours, creating a special place to work at home, and turning off work-related notifications during off-working hours. Adisa et al. (2022) have specifically requested a systematic investigation of such strategies, mentioning that employees who practice active boundary management report more positive balance and performance results than those who leave work and personal life to become completely merged.

The second is organizational support: how much the active use of organizations contributes to remote work using flexible policies, sufficient technological infrastructure, consistent and high-quality managerial communication, and official remote work policies. Pensar and Rousi (2023) and Wagan and Sidra (2025) have shown that organizational support is a key resource that boosts or diminishes the effectiveness of personal coping processes of employees. Combined with organizational support, personal boundary-setting is likely to have an interaction: organizational support can augment the effects of individual strategies, whereas strong personal boundary practices can offset weak institutional support. However, this interactive relationship has not been studied quantitatively in cross industry sample.

The existing study fills this gap by examining how personal boundary-setting strategies and organizational support influence employee productivity and work-life balance in remote work settings and the interaction between the two. The thesis, therefore, contributes to three different but interconnected areas of literature: the remote work

outcomes literature, which seeks to understand the circumstances under which remote work has a positive or negative impact on employee outcomes and well-being (Galanti et al., 2021; Grenčíková et al., 2024); the boundary management literature, which examines how remote workers manage the work-home boundary in a context of spatial and temporal flexibility (Adisa et al., 2022; Pensar and Rousi, 2023); and the organizational support literature in remote work contexts, which explores how remote workers are influenced by the resources provided by their employer (Wagan and Sidra, 2025; Staniec et al., 2023). In addition, by integrating all three streams into a single empirical model, this thesis attempts to transcend fragmented single-factor studies that characterize this field so far.

1.3 Research Gap

An in-depth analysis of the available evidence shows that there are five particular gaps that this thesis is set to fill. To begin with, most of the studies have focused on the overall impact of remote working on productivity or work-life balance without exploring the mechanisms that cause such impacts. Research like Galanti et al. (2021) and Rañeses et al. (2022) confirm that remote work may positively and negatively affect these results, but provide little data on what conditions can lead to which outcome. Literature is therefore more descriptive than explanatory.

Second, the personal boundary-setting strategies have been comparatively under-researched in quantitative studies. Adisa et al. (2022) specifically asked to conduct additional systematic research on the particular strategies, including the establishment of time schedules and spatial patterns, which employees employ to cope with the work-home interface. Large-scale measurement and analysis has not yet responded to this call. Third, despite the fact that organizational support has been identified to be significant by various studies (Pensar and Rousi, 2023; Staniec et al., 2023; Wagan and Sidra, 2025), the exact elements of organizational support, such as flexible policies, technological provision, or managerial communication practices, that are most associated with positive outcomes are not specified.

Fourth, much of the literature is limited to one-industry or one country, which restricts the generalizability of results. Lorentzon et al. (2024) deal with auditing, Rahman and Sing (2024) with semiconductor manufacturing in Malaysia, and Staniec et al. (2023) with higher education in Poland. These context-specific contributions would be supplemented by a cross-industry, quantitative study.

Fifth, and most importantly to this thesis, no study has quantitatively investigated the joint and possibly interactive impact of personal boundary-setting tactics and organizational support on the outcome of remote work. Grenčíkova et al. (2024) explicitly request multi-factor research designs that go beyond the study of individual variables. The current thesis is a response to this methodological appeal and it is an integrative analytical model that takes into account both individual and organizational aspects at the same time.

1.4 Research Questions and Objectives

The above discussion leads to the following central research question:

How do personal boundary-setting strategies and organizational support influence employee productivity and work-life balance in remote work settings?

Four research objectives help to support this central question. The initial goal is to determine and quantify the personal boundary-setting behaviors used by remote employees in the various industries and evaluate their relationship with the self-reported productivity and work-life balance. The second goal is to assess the dimensions of organizational support that remote workers consider to be the most consequential in their capacity to work effectively and have a sustainable work-life arrangement. The third goal is to test the interaction of personal and organizational support in terms of its influence on productivity and work-life balance, and whether these two aspects have any combined effects that are not simply summative effects of the two factors. The fourth goal is to come up with evidence-based organizational policy and practice recommendations, especially to human resource managers and organizational leaders in charge of developing effective remote work arrangements.

Collectively, these aims place the thesis at the nexus of agency at an individual level and organizational structure in remote work settings, which is relevant to the academic literature as well as to the policy design.

1.5 Methods and Data Collection

This research takes the form of a quantitative, cross-sectional research design, which is in line with the positivist tradition that prevails in organizational behavior and human resource management research. The quantitative method is suitable due to the aim of evaluating the relationships between measurable variables, namely, the strategies of setting boundaries, organizational support, productivity, and work-life balance by validated survey measures and statistical analysis. The structured online questionnaire will be used to collect data by sending it to remote and hybrid workers in various industries and organizational types, and the target group will include 50 to 100 participants. The recruitment of respondents will be done through professional networks such as LinkedIn, online remote work communities, and where feasible, through organizational HR departments. The study will be analyzed using descriptive statistics, correlation analysis, and multiple regression to determine the relationship between the variables in the study. Chapter 3 covers in the detail the design, sampling strategy, instrumentation and analytical strategy of the study.

1.6 Scope and Limitations

The research is planned to be cross-industry in nature, including remote and hybrid workers of different organizational backgrounds and geographic locations, which enhances its generalizability compared to one-industry research. A number of limitations must however be noted at the very beginning. The cross-sectional design does not allow making causal inferences; the relationships found between boundary-setting, organizational support, and outcomes cannot be viewed as causal relationships. The use of self-reported measures also creates the risk of common method bias because both explanatory and outcome variables are assessed using the same survey measure at the

same time. Professional platforms like LinkedIn can lead to a sample that is more digitally active and organizationally active workers. Lastly, there is no office comparison group, which restricts the extent to which the results can be specifically applied to remote work as a form of employment. These restrictions are recognized in this open manner and are discussed further in the final chapter.

1.7 Structure of the Thesis

The thesis consists of five chapters. Chapter 1 has presented the research context, problem, motivation, research question and objectives and a summary of the methods. Chapter 2 gives the theoretical background, which reviews the literature on the topic of remote work, productivity, and work-life balance, and expounds on the two theoretical frameworks, namely Boundary Theory and Conservation of Resources Theory, that inform the study. The methodology is described in detail in chapter 3. The empirical findings are reported in Chapter 4 and discussed in Chapter 5, theoretical and practical conclusions are made, limitations are mentioned, and future research directions are identified.

2 Literature Review

The chapter is a critical review of the academic literature that guides and contextualizes the current study. The review is carried out in nine thematic sections. Section 2.1 follows the definition and historical process of remote work as an organisational phenomenon. Section 2.2 then looks at the empirical relationship between remote work and employee productivity and starts by defining productivity and then looks at the evidence based on the two theoretical frameworks that have since been developed. Section 2.3 also examines the connection between remote work and work-life balance. In section 2.4 and 2.5, the two primary theoretical frameworks, Boundary Theory and Conservation of Resources (COR) Theory respectively, are introduced and developed, and how each sheds light on the dynamics found in the previous empirical sections. Section 2.6 discusses organisational support in remote working set ups. Personal boundary-setting strategies are discussed in Section 2.7. Section 2.8 discusses the contextual and demographic moderating variables that influence the outcomes of remote work. Section 2.9 ends the chapter with a synthesised conceptual framework that gives the theoretical background to the empirical investigation, and the formal hypotheses of the study.

2.1 Remote Work: History, Forms and Definition

Remote work, also known in the literature as telework, telecommuting, distance work, or work from home, is a broad term that is used to indicate any working arrangement where employees perform their professional duties outside of a traditional employer-provided office, through the use of digital communication and information technologies to stay in touch with their organisations and colleagues. Although it seems simple, the concept has a broad spectrum of practical constructions that can differ in a variety of key dimensions: frequency (full-time, hybrid or occasional), location (home, co-working space, or mobile settings), and the extent to which the arrangement is dictated by formal organizational policy as opposed to informal managerial discretion.

The concept of remote work has its intellectual and practical roots in the early 1970s. The term telecommuting was first coined by Jack Nilles in the context of the discussion

of the energy conservation in the 1973 oil crisis, who suggested that electronic communication technologies could be used instead of physical commuting to work and thus save on fuel use and urban congestion. During a number of decades that followed, remote work was a peripheral organizational structure that was only exercised by certain groups of workers: sales representatives, field engineers, and a few knowledge workers in creative sectors. The wider organizational culture was strongly anchored to the assumption that the productive employment demanded physical co-location in a common work place.

The gradual development of broadband internet access, cloud computing, and advanced collaboration technologies in the 2000s and 2010s laid the groundwork for the development of remote work. However, as Galanti et al. (2021) found in their extensive investigation of the Italian workers during the COVID-19 pandemic, the widespread use of remote working by employers was much lower than the technological potential due to the deep-rooted managerial beliefs that physical presence and effective interaction were inseparable. Most organizations that had the technical capability to work remotely had not put in place coherent remote work policies and had given their employees little or no preparation or training on how to work at home.

The 2020 COVID-19 pandemic was a sudden and wholesale break with this trend. The lockdowns and public health advice imposed by governments forced an abrupt, unwilling, and mostly unplanned shift to home-based working by tens of millions of workers in virtually all sectors of the global economy. The dizzying nature of this transition was captured by Adisa et al. (2022), who wrote that employees were mandated nearly overnight to cope with the total breakdown of the physical distance between the workplace and home that previously was an automatic and a given boundary between their professional and personal realms. With the acute stage of the pandemic being in the rear view mirror, a new frontier of work started to emerge where hybrid forms of work (a combination of work from home and work from office) became the new form of work in most knowledge intensive sectors. The studies carried out in different national settings, such as Finland and Scandinavia (Pensar and Rousi, 2023), Malaysia (Rahman and Sing, 2024), the United Arab Emirates (Rañeses et al., 2022), Iraq (Salman Ameen et

al., 2023), and post-secondary educational institutions worldwide (Staniec et al., 2023) all indicate that remote and hybrid work are here to stay and not a temporary characteristic of the modern labour market. This union makes the systematic academic study of both the findings from working remotely and the processes that determine these findings an urgent intellectual necessity.

Table 1: The major milestones in the history of Remote Work

Period	Development	Significance of Remote Work
1970s	Telecommuting concept developed (Nilles)	Remote work as energy/transport solution first discussed; not widely discussed in academia.
1980s-90s	Preliminary empirical research; Boundary Theory was formulated (Nippert-Eng, 1996)	First empirical research on work-home boundary dynamics; Theory was established.
2000s	Work-family border theory (Clark, 2000); broadband expansion	JD-R Model (Bakker and Demerouti, 2007); more widespread in organizations, primarily in knowledge industries.
2010s	Cloud computing; collaboration tools; flexible work practices	Psychological detachment research (Sonnentag, 2012); application of COR theory to work-life balance.
2020-Present	COVID-19 pandemic; forced switch to remote work	Explosion of empirical research; hybrid work; boundary management and org. support (Adisa et al., 2022; Pensar & Rousi, 2023).

2.2 Remote Work and Employee Productivity

The empirical evidence discussed in Sections 2.2 and 2.3 is framed around two theories - Boundary Theory (Nippert-Eng, 1996; Clark, 2000) and Conservation of Resources (COR) Theory (Hobfoll, 1989) - that are formally introduced and elaborated in Sections 2.4 and 2.5 respectively. They are referred to here in their most elementary form to provide an

analytical framework to the empirical evidence; see Sections 2.4 and 2.5 for the full theoretical development.

It is worthwhile to define the concept of productivity in the context of remote work before looking at the empirical relationship between remote work and employee productivity. Employee productivity here is seen as the ability of an individual to accomplish work tasks effectively, to a high level, and within a reasonable time frame, both quantitative in terms of the amount of output and the rate of task completion, and qualitative in terms of concentration, accuracy, and perceived performance compared with the pre-remote baselines (Koopmans et al., 2011). The significance of this multidimensional conceptualization is that, as will be seen in the evidence discussed below, remote work does not have equal effects on all dimensions of productivity; its effects are strongly mediated by the circumstances in which it is practiced.

The connection between remote work and employee productivity has produced a large and rapidly growing empirical literature since the mass shift to working at home in 2020. In the prism of the Boundary Theory, the key point is that the productivity in the remote circumstances is not merely a matter of the work but rather a factor of how well the employees are able to preserve the proper and effective distance between the work and personal realms. By maintaining boundaries, usually with the help of conscious temporal, spatial, and behavioural plans, employees can more effectively maintain focused attention at work, minimize the cognitive cost of domain management, and recuperate psychologically during personal time, which all contribute to ongoing productive output (Nippert-Eng, 1996; Adisa et al., 2022). On the other hand, productivity is negatively affected because of constant interruptions, cognitive overload, and fatigue in case boundaries start to be weakened, as it happened on a large scale during the pandemic-induced transition to remote work.

The complementary explanatory mechanism to address this issue is Conservation of Resources (COR) Theory. In COR terms, the productivity outcomes are largely determined by the presence of sufficient stocks of the most important resources needed to work remotely, such as a dedicated workspace, efficient technological infrastructure,

self-regulation abilities, and organizational support. Well-resourced employees are in a better position to handle the demands of remote working and to maintain productivity over time; those who lack resources are vulnerable to falling into a loss spiral where increasing demands exceed their resources to cope, which increasingly compromises the quality of their output and their wellbeing (Hobfoll, 1989).

This theoretical image is generally supported by the empirical literature, but also has significant heterogeneity. Galanti et al. (2021) reported that most Italian remote workers were equally or more productive at home due to the absence of commute and distractions. This is supported by Grenčíková et al. (2024), who found that productivity was indeed positive in Central European firms, but importantly, qualified this finding by stating that the effect was limited to employees with a home office and access to technology. This is theoretically important, as it moves the explanation from remote work being productive, to resource availability being the key factor, as predicted by COR Theory. This was further confirmed by Rahman and Sing (2024), who found that the quality of the work environment and technology were the best predictors of productivity, not the remote work itself. It is this interconnection that would be predicted by both Boundary Theory and COR Theory: both outcomes are influenced by boundary erosion and resource depletion.

The relevance of material and structural conditions is also supported by Grenčíkova et al. (2024), who in Central European organizations discovered that employees who had a dedicated home workspace and sufficient technological facilities had much higher task completion efficiency and work quality when compared to employees who did not have such facilities. The overall positive productivity impacts observed in larger research can thus conceal large heterogeneity due to variations in domestic working conditions - a trend that is in line with the COR argument that resource availability is the key moderator of remote work performance. This conclusion was reached by Fathima (2025) in a systematic review and proved to be true as the strong positive relationship between good management of remote work and productivity depended highly on proper technology provision, communication management by managers, and individual skills in boundary management.

In addition to material resources, the relational and managerial aspects of organizational context influence productivity in a direct manner that is directly predicted by COR Theory. In a study of semiconductor multinationals in Malaysia, Rahman and Sing (2024) discovered that the quality of the work environment, as well as the technological infrastructure, had a significant positive predictive effect on the productivity of employees, and that the gender moderation effect was also quite noticeable: the productivity of female employees was more strongly associated with the quality of the work environment than with the productivity of their male counterparts, which the authors attribute Harjanto et al. (2023) also found that managerial trust, operationalized as the extent to which managers gave employees freedom over their time and work without close monitoring, was a potent resource in its own right, which significantly outperformed control-based management in its impacts on loyalty, engagement, and productive output. Wagan and Sidra (2025) built on this argument, and found a group of evidence-based virtual team leadership practices, such as structured communication, clear performance expectations, and proactive wellbeing monitoring, which are especially effective in maintaining team performance in distributed environments.

Not every evidence, however, is directed in a consistent way towards the positive and this dispersion is informative in theory. In the higher education, Staniec et al. (2023) revealed the same situation, as individuals' productivity at performing tasks remotely could be kept at the necessary level easily; however, collaborative productivity was commonly lower, particularly for tasks which required spontaneous interaction, joint physical presence at the site, and informal collegial relationships as their foundation. A similar trend was found by Lorentzon et al. (2024): routine work was done well at home, whereas more complex work that involves judgment and requires subtle communication with clients and physical evidence gathering was perceived as severely impaired. These results are in line with a Boundary Theory reading where the lack of the physical workplace poses specific challenges to work that necessitates flexible, unstructured boundary crossings between personal and communal space.

All in all, it has been proven that remote work productivity is not just a one-dimensional concept that should either be considered negative or positive, but rather a complex one

that depends on interaction between different factors. This conceptualization of multi-factors is a direct informant of the integrative approach of analysis followed in the current thesis.

Table 2 : Summary of Key Empirical Studies : Remote Work & Employee Productivity

Study	Context/Sample	Method	Key Findings on Productivity
Galanti et al. (2021)	Italy ; COVID-19	Survey	Majority report equal/higher productivity mediated by autonomy and less interruptions.
Rahman & Sing (2024)	Malaysia ; Semiconductor MNCs	Survey	The quality of work environment and tech infrastructure is a predictor of productivity; gender moderates the relationship.
Grenčíková et al. (2024)	Central Europe	Survey	IT resources and dedicated workspace are important positive predictors of remote task efficiency.
Staniec et al. (2023)	Higher education ; Poland	Survey	Personal task productivity was preserved; team productivity reduced by remote working.
Harjanto et al. (2023)	Remote work ; Multiple industries	Survey	Managerial trust is a very effective way of increasing the loyalty and productivity of remote employees compared to surveillance methods.
Lorentzon et al. (2024)	Auditing profession	Interviews	Routine audit work can be performed satisfactorily remotely; judgment work that requires complex judgment is undermined by absence of in-person work.
Wagan & Sidra (2025)	Virtual teams ; multiple industries	Review	Managerial practices that can be used to maintain virtual team productivity include structured communication, clear expectations, and wellbeing monitoring.

Naithani (2025)	Multiples industries ; review	Review	The organizational wellbeing support produces measurable productivity payoffs; one of the major risk factors is isolation.
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2.3 Remote Work and Work-Life Balance

The concept of work-life balance, as it is interpreted in the modern organisational literature, is the subjective feeling that the work and personal realms are properly divided and that one does not interfere with the time, energy, and psychological resources of the other. In their original conceptualisation of work-family conflict, Greenhaus and Beutell (1985) identified three possible mechanisms of interference: time-based conflict, where the work demands take time that could otherwise be used in personal roles; strain-based conflict, where the work-based stress flows over and impairs the functioning of personal roles; and behaviour-based conflict, where the behavioural patterns developed in one sphere are incompatible with the demands of the others. These three mechanisms are still analytically pertinent today and remote work exacerbates all three in a way that is informative to both Boundary Theory and COR Theory.

In the Boundary Theory view, the ultimate threat that remote work presents to work-life balance is the removal of the spatial and temporal distance between the workplace and home that automatically comes with office-based work. The physical process of commuting, the physical separation of work and home, and the social conventions of office time all combine to create a structural boundary that does not need to be actively maintained, in the traditional office setting. In remote working, this structural framework is stripped away, leaving employees to create and sustain boundaries within domains through their conscious behavioral, temporal, and psychological efforts. One of the most theoretically sophisticated accounts of this process, based on Boundary Theory, was offered by Adisa et al. (2022), who found that the breaking down of the physical boundary between work and home caused by the pandemic led to the widespread feeling of boundary erosion – defined by perpetual domain leakage, always-on work, and

intense work stress and anxiety – which was significantly more crucially, however, Adisa et al. also discovered what they termed micro-bordering practices: subtle behaviors used by workers to compensate for the disappearance of the structural workplace boundary, which they identified as an important but overlooked source of adaptation.

COR Theory provides a resource based explanation of these dynamics, which supplements the boundary management lens. The key to good work-life balance under the COR principles is that the employees should have and maintain the resources necessary to cope with the work-home interface effectively, such as personal self-regulation capacity, time, energy, psychological detachment ability and organisational support. In their article on Scandinavian remote workers, Pensar and Rousi (2023) established empirically that the work-life balance outcomes were highly predicted by the availability of resources: employees who had enough resources reported much better work-life balance, whereas those with resource shortages showed a gradual decline in the quality of balance as Hobfoll (1989) predicted in his loss spiral dynamic. Notably, Pensar and Rousi also discovered that there was a significant individual variation in the balance outcomes that could not be explained solely by the availability of resources, and that personal preferences, domestic situations, and cultural orientations towards work and family had independent effects - indicating the complexity of the phenomenon and the constraints of any single theoretical explanation.

Another resource that is particularly significant in work-life balance under remote conditions is the ability to be psychologically detached at work during leisure time. Sonnentag (2012) determined that mental dissociation with work-related thoughts and concerns during personal time is a key recovery mechanism that enables employees to restore the personal resources that work demands drain. Those employees that are able to detach effectively record significantly reduced stress, increased wellbeing and increased work engagement later compared to employees who continue to think about work during personal time. The remote work presents a specific problem to psychological detachment since the spatial proximity of work and home offers a continuous flood of environmental stimuli, screens, desks, work-related notifications, work materials, which evoke work-related cognition and prevent the psychological

switching-off that successful detachment demands. Sonnentag and Fritz (2015) also determined that psychological detachment mediates the association between job stressors and strain, which proves its centrality in the recovery process.

The balance outcomes are also greatly influenced by the relational and managerial context of remote work in a manner that is expected by COR Theory. Indian remote workers who studied across industries reported that the flexibility of remote work was both appreciated and also came with a range of new challenges related to work-life separation; participants with more control over their work hours had better balance, and those with less control over their work hours or high expectations of constant availability had much worse results (Sati and Vats, 2024). In Dubai, Ranjes et al. (2022) discovered that work-life balance was a strong positive predictor of job satisfaction, whereas Salman Ameen et al. (2023) in the Iraqi banking sector established a strong positive correlation between work-life balance and the productivity of employees during the pandemic. These two-way results support the claim that productivity and balance are highly interdependent outcome variables and not independent constructs, and that interventions that help to improve one are likely to improve the other through common resource processes.

Table 3: Summary of Key Empirical Studies: Remote Work and Work-Life Balance

Study	Context/Sample	Framework	Key Findings on Work-Life Balance
Adisa et al. (2022)	UK; COVID-19	Boundary Theory	Pandemic led to extreme boundary erosion; micro-border practices were found as adaptive response.
Sonnentag (2012)	Multiple studies; review	Recovery theory	A very important recovery process to wellbeing is psychological detachment during non-work time.
Pensar & Rousi (2023)	Scandinavia; remote workers	COR Theory	Org. support best predictor of balance; loss spirals due to resource deficits.

Rañeses et al. (2022)	Dubai; consultancy	Survey	Work-life balance is a positive predictor of job satisfaction and productivity.
Greenhaus & Beutell (1985)	Conceptual	Work-family conflict	Three-mechanism model: time-, strain-, and behaviour-based conflict - all enhanced by remote working.
Salman Ameen et al. (2023)	Iraq; banking sector	Survey	Balance is enhanced by autonomy over working hours and deteriorated by monitoring/always-on expectations.
Sati & Vats (2024)	India; various industries	Survey	A positive predictor of employee productivity is work-life balance.

2.4 Theoretical Framework I: Boundary Theory

The initial one of the two major theoretical frameworks that will inform this thesis is the Boundary Theory, which was first formulated by Nippert-Eng (1996) in her pioneering ethnographic research into how laboratory scientists and machinists create and sustain the boundary between their professional and personal lives. The main point that Nippert-Eng made was that the division between the work and non-work realms is not a naturally occurring or self-perpetuating social phenomenon, but rather a product of active construction and constant negotiation. By examining ordinary objects, practices, routines, the contents of wallets and calendars, the use of keys, the time of meals, the handling of clothes, Nippert-Eng had shown that people make constant, but mostly unconscious, decisions about which artefacts, activities, relations, and mental states fall into the category of work, which fall into the category of home, and which are allowed to cross the boundary between the two.

The key concept in the framework of Nippert-Eng (1996) is a conceptual continuum that runs between two ideal-typical approaches to the management of boundaries: segmentation and integration. Segmenters have very clear, well-defined and very

impermeable work-home boundaries and consider the two as fundamentally different and irreconcilable spheres of life. Integrators, in their turn, allow and even encourage a significant overlap and interpenetration between the domains, making the work time and personal time, workspace and personal space, work-related and personal relationships less distinct. The spectrum of possible orientations of the boundaries between these poles is continuous, and each of the employees usually occupies a point on this spectrum that represents the personal preferences as well as the structural constraints and enabling conditions of the specific work situations. Figures 1 illustrates this continuum.

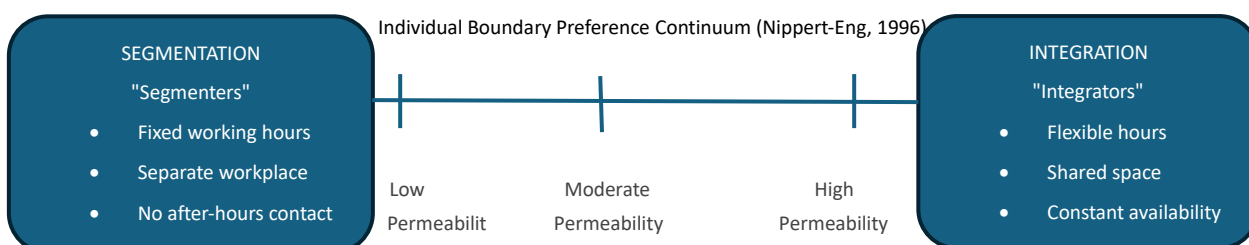


Figure 1: The Boundary Theory Continuum: Segmentation vs. Integration (adapted from Nippert-Eng, 1996)

Clark (2000) expanded and developed Boundary Theory by her work-family border theory, which was published in the journal *Human Relations*. The framework developed by Clark redefines workers as border-crossers who daily cross the boundary between the world of work and the world of family and who actively construct and regulate the boundaries between the two worlds in their decisions and actions. Clark (2000) proposed a very important distinction between two aspects of domain boundaries: permeability, the extent to which elements of one domain are permitted to intrude into another (e.g. work-related calls made during family time), and flexibility, the extent to which the temporal and spatial indicators of a domain, such as working hours, workplace location, can be altered to meet the needs of the other domain. The border theory framework produces a set of propositions regarding when and why workers will be in conflict or in balance at the work-family interface, and what the nature of borders and

of border-crossers is most likely to be correlated with successful management of the work-family transition.

Allen et al. (2014) were an authoritative and thorough review of the work-family boundary dynamics, which synthesised decades of empirical studies on the antecedents and outcomes of boundary management practices. Their review, which was published in the *Annual Review of Organizational Psychology and Organizational Behavior*, proved that the behaviors that are considered to be the most significant determinants of work-family conflict and balance are the behaviors of boundary management, i.e. the particular strategies people employ in order to establish, sustain and modify the boundaries between the work and personal sphere. They reported that the moderating variables of the effectiveness of the boundary management strategies are a variety of individual difference variables, such as integration and segmentation preferences, self-regulation ability, and the availability of organizational support in maintaining the boundaries.

Boundary Theory has a direct and deep theoretical relevance to the study of remote work. When the employees are at home, the spatial and physical distance between the office and the home is removed, which has been a potent and automatic process of domain separation in the past. It is upon the employees to then build and sustain domain boundaries using conscious behavioral, temporal, and spatial tactics, when the structural support that the physical workplace used to offer is no longer available. Adisa et al. (2022) used the Boundary Theory directly in their research of the effects of the pandemic on the management of the physical boundary between work and home, and discovered that the loss of the physical boundary created a pervasive sense of the phenomenon of boundary erosion, which included a sense of chronic domain permeability and the stress that accompanies it. In their very influential article on micro role transitions in the *Academy of Management Review*, Ashforth et al. (2000) had already determined that the permeability and strength of the boundaries between domains and roles is what determines the ease or difficulty of transition between them - a fact that predicts and adds to the knowledge of the particular challenges posed by remote working to domain boundary management.

2.5 Theoretical Framework II: Conservation of Resources Theory (COR)

The second major theoretical framework that will be used in this thesis is the Conservation of Resources (COR) Theory, which was proposed by Hobfoll (1989) in the *American Psychologist*, and later developed by a number of theoretical models over a period of over thirty years. COR Theory provides a motivational explanation of psychological stress and wellbeing in terms of resources. Its fundamental hypothesis is that humans are basically motivated to acquire, accumulate, protect, and develop resources, which can be described as whatever individuals value and require for themselves in order to meet the demands of their existence. In the COR framework, stress is caused specifically when resources are at risk of loss, when resources are lost, or when there is a big investment of resources that does not give the expected resource gain.

Hobfoll (1989) came up with a taxonomy of resources that are grouped into four general categories. Object resources are material goods and physical environmental factors, which support the attainment of goals - in the case of remote work, it would be an appropriate work environment at home, good technological devices, and a high internet connection. Some of the valued states that are condition resources are employment security, tenure, and social support. Personal characteristic resources are skills, competencies, self-efficacy, optimism, and other personal resources that facilitate effective coping such as self-regulation skills and boundary management competencies that remote work requires. Time, money, and knowledge are examples of energy resources that can be used in order to obtain and defend other resources.

In the COR framework, organizational support is a condition resource - one of the most important resources for remote workers, as the move to remote work eliminates the informal support that is provided in the office environment. It's worth noting that organizational support is not the only source of resource acquisition for remote workers. Workers often invest their own financial and time resources in the absence of organizational provision - buying ergonomic office equipment, improving their home internet, or setting up a home office. Hobfoll's (1989) model fully supports this possibility:

resource investment is a goal-directed behaviour that people engage in from whatever resources are available to them, and this personal resource investment is an important and often overlooked aspect of the resource environment of remote workers. The focus on organizational support as the institutional resource predictor in the current study is a consequence of the limitations of survey research and is discussed in Chapter 5.

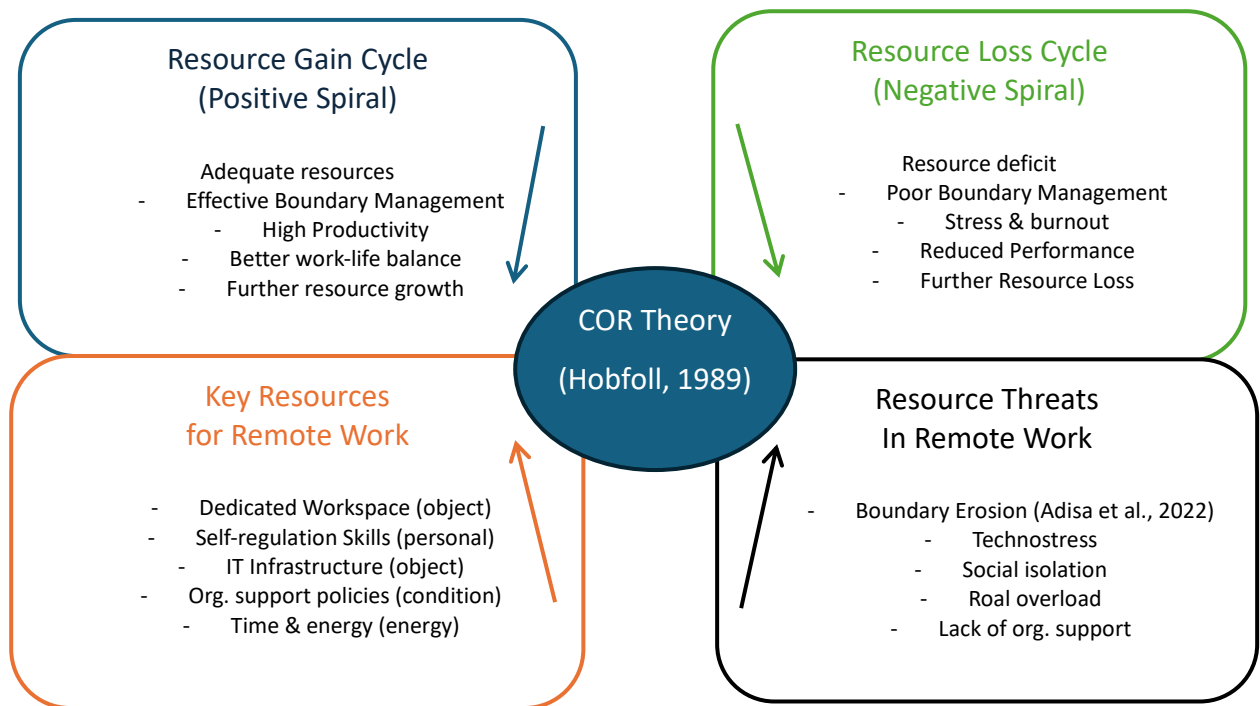


Figure 2 : Conservation of Resources Theory Applied to Remote Work (adopted from Hobfoll, 1989; Pensar and Rousi, 2023)

The COR Theory has significant implications on the results of remote work. The framework hypothesises that well-resourced remote workers, either through the supportive organizational policies, sufficient technological infrastructure, well-developed personal self-regulation capabilities, or favourable domestic conditions, will be in a better position to cope with the challenges of home-based working and will therefore enjoy greater productivity and work-life balance. The scarcity of resources, on the other hand, is expected to create a downward spiral where the loss of resources at the beginning of the experience makes one more vulnerable to losses: employees who start their remote working experience with already limited resources in terms of the

relevant resources will experience a compounding loss of resources as the needs grow. This dynamic was described by Hobfoll (1989) as the principle of resource loss cycles and he argued that loss is self-amplifying as loss begets loss. This prediction is explained in the context of recovery following work stress in the Stressor-Detachment Model by Sonnentag and Fritz (2015), which explicitly builds on the COR Theory, showing that the failure to psychologically dissociate with work in non-work time, a result of resource depletion in its own right, creates a feedback loop of increasing strain and decreasing recovery ability.

In their state of the art review of the Job Demands-Resources (JD-R) Model published in the *Journal of Managerial Psychology*, Bakker and Demerouti (2007) offered a complementary theoretical framework that operationalises and extends important insights of the COR Theory in the occupational context. The JD-R Model suggests that any occupational environment can be described in terms of its demands, i.e. the physical, psychological, and organizational demands that the employees have to satisfy, which involve costs in the resources that are used, and resources, i.e. the physical, psychological, social, and organisational characteristics of the job that enable the employees to reach their goals, lower the demands, and develop personally and professionally. The JD-R Model is a two-process model that forecasts a health-impairment process where excessive work demands drain resources of employees resulting in strain and burnout and a motivational process where sufficient work resources promote engagement and performance. The JD-R lens can be productively applied to the remote work context to understand the demands that remote working places on it, such as the need to manage the boundary, social isolation, increased self-regulation needs, and the resources that can be used to buffer these needs, such as flexible organizational policies, sufficient technology, managerial support, and personal boundary management skills.

Figure 3 illustrates the JD-R Model as applied to the remote work context.

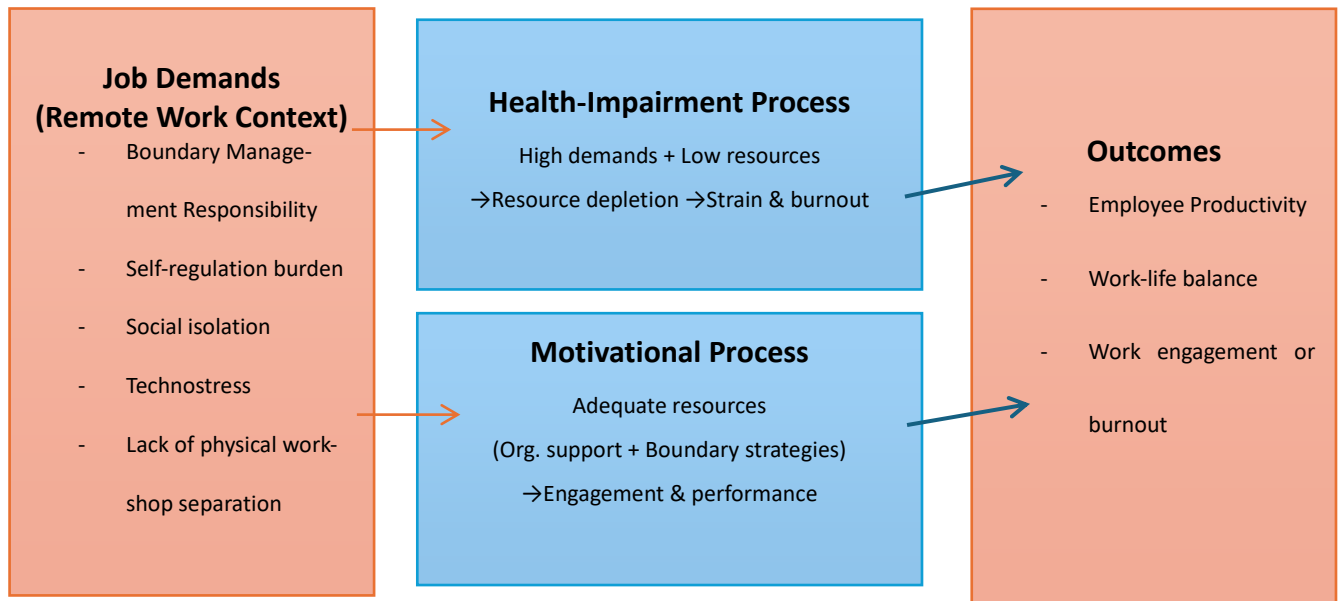


Figure 3: Job Demand- Resources (JD-R) Model Applied to Remote Work
(Adapted from Bakker & Demerouti, 2007)

Pensar and Rousi (2023) directly used the COR Theory in their research on the work-life balance of remote employees in Scandinavia and discovered strong evidence that access to organizational resources, especially flexible work policies and responsive managerial support, moderated the relationship between the demands of remote work and the outcomes of work-life balance. Their research reported the resource depletion process outlined by Hobfoll (1989): employees who did not receive sufficient organizational support reported a gradual resource depletion process, which resulted in the declining capacity of the boundaries and the deteriorating balance outcomes over time. This paper offers the closest empirical application of COR Theory to the current research questions and supports the argument of organizational support as an important explanatory variable.

The theoretical complement of Boundary Theory and COR Theory is one of the main strengths of the analytical framework used in this thesis. Boundary Theory focuses on the behavioral strategies that are used by remote workers to deal with the work-home interface, whereas COR Theory offers the motivational and resource-based rationale as

to why these strategies are consequential to employee outcomes. Under the COR lens, the resource-building and resource-protection behaviours are considered as the boundary-setting strategies: in keeping the boundaries between work and personal life effective, the remote workers can save time, energy, attention, and the ability to recover psychologically, which are vital to long-term work performance and personal wellbeing.

2.6 Remote Work and Organizational Support

Having established in Section 2.5 that organisational support is a key condition resource in the COR model, a resource that determines whether remote workers experience resource gain or loss spirals - the aim of this section is to examine the empirical evidence on how organisational support works in remote work settings. This is not a re-theorization of organizational support but rather an exploration of what the literature tells us about its specific dimensions, relative importance as a predictor alongside other factors and the managerial practices most likely to be associated with successful remote work outcomes. In this regard, this section shifts from the theoretical significance of organizational support as identified by the theory of COR to its actual practice in literature on remote work.

There is clear pattern emerges in the empirical literature regarding organizational support as a crucial determinant of remote work success. Pensar and Rousi (2023) found it to be the strongest predictor of work-life balance among Scandinavian remote workers, with four dimensions being especially important: flexibility of formal remote work policies; quality of managerial communication; adequacy of technological resources and IT support; and availability of formal and informal social support (e.g., peer networks, employee assistance programs). Importantly, they also confirmed the loss spiral prediction of COR Theory: workers lacking organizational support exhibited a depletion of resources over time, with worsening boundary management and balance outcomes, which could only be reversed through organizational action.

Wagan and Sidra (2025) have considered organizational support in the context of leadership of virtual teams, and have identified a range of evidence-based leadership practices that are effective in remote teams. These include clarity of performance

expectations, regular structured feedback and rewards, structured opportunities for social interaction to offset the loneliness associated with remote work and proactive monitoring and support for employee wellbeing through identification of risk factors. What is common across these practices is the change in management philosophy they represent - from a focus on presence and activity monitoring to performance-based management and relationship-building. It is not merely a question of changing styles but a re-framing of organizational support in the face of invisibility.

In research conducted by Staniec et al. (2023) in higher education during the time of the coronavirus, it was discovered that two critical aspects of organizational communication - clarity and consistency - were strong determinants of employee performance, with individuals who received coherent communication performing more efficiently and satisfactorily. Grenčíková et al. (2024) also identified the importance of policy individualization - the tailoring of remote work arrangements to the family and household needs, personal preferences and job requirements of individual employees rather than the enforcement of a one-size-fits-all approach - as another important dimension of organizational support, consistent with Boundary Theory's emphasis on individual differences in boundary preferences. Harjanto et al. (2023) found that managerial trust - defined as the extent to which managers allow employees autonomy in how they spend time and work without constant supervision - was a particularly strong facet of organizational support, with trust-based management having a significantly greater positive impact on productivity, engagement and wellbeing than surveillance-based management.

This evidence confirms that organizational support is not a unidimensional construct but a multidimensional resource that has multiple dimensions (policy individualization, communication clarity and consistency, technology support, social support, and managerial trust), each of which has its own independent impacts on the resource environment of remote workers. This complex nature of organizational support is reflected in its operationalization as a five-item composite scale in the survey tool used in this study, outlined in Chapter 3.

2.7 Personal Boundary-Setting Strategies

The various types of behavioral, temporal, spatial, and psychological practices by which individual remote workers create and sustain meaningful boundaries between their professional and personal lives are known as personal boundary-setting strategies, and they are necessary in the absence of the automatic domain-separation processes that the traditional office environment offers. The literature has proposed a number of analytically different types of boundary-setting strategy, each of which is related to a different dimension of the boundary management challenge.

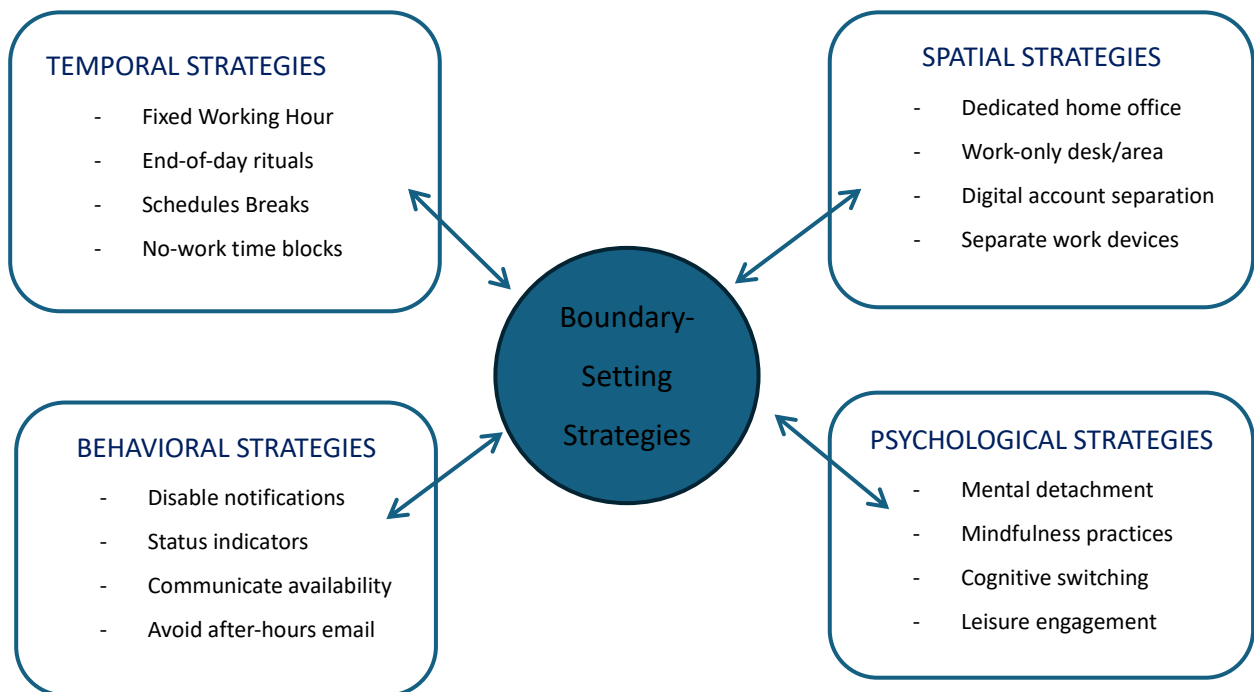


Figure 4: Taxonomy of Personal Boundary-Setting Strategies in Remote Work
(synthesised from Adisa et al., 2022; Ashforth et al., 2000; Sonnentag, 2012)

Temporal boundary setting strategies involve the management of time as a domain separation strategy. The simplest type of temporal boundary-setting is the keeping of fixed, predictable working hours: remote workers who stick to a regular start and finish time of their working day, and who do not give into the temptation of extending their working hours into evenings, weekends, or other personal time, effectively use the temporal structure as a boundary against domain permeability. Related time plans are

the labeling of planned breaks to provide micro-transitions in the working day, the inviolability of certain times as personal, and the development of end-of-day rituals - similar to the commute that previously defined the end of the working day and the beginning of the home one - which indicates the psychological and temporal end of the working day. Adisa et al. (2022) have found that temporal boundary-setting is a key type of micro-border practice, and that the employees who experienced the most boundary erosion during the pandemic were those who were disproportionately those who had not developed clear temporal practices to manage the work-home interface.

The spatial boundary-setting strategies imply the application of physical and digital space as domain-separation strategies. When applied to remote work, spatial boundary-setting is most often performed by defining a particular space within the home setting as a workspace where work-related tasks are carried out, physically separate to areas where personal and family life are practiced. One of the most frequently reported material conditions of successful remote work is having access to a separate dedicated space for work. That is, employees with access to a home office or study achieve much better work-home separation, boundary permeability, and balance outcomes than employees working from shared or multipurpose spaces, such as kitchen tables or living rooms. Both Grenčíkova et al. (2024) and Rañeses et al. (2022) reported high positive correlations between the availability of dedicated workspace and productivity as well as balance. Spatial boundary-setting may be applied to digital space, where employees may use different devices, accounts, or browser profiles to work and personal activities.

Behavioral boundary-setting strategies are intentional behavioral efforts aimed at actively controlling the work-home boundary permeability. The most common behavioral strategies are disabling work-related notifications and email alerts when not working; using availability status indicators on communication platforms to indicate working and non-working hours; actively pursuing personal activities and relationships when not working as a way of establishing behavioral distance between work and non-work. Pensar and Rousi (2023) discovered that behavioral strategies, especially, the active disengagement of work-related digital communication during off-hours, were

some of the most effective practices in setting boundaries to ensure work-life balance in remote work settings.

The psychological boundary-setting strategies are the conscious control of mental and emotional involvement in the work at the time of non-work. Even without overt behavioral boundary-breaches such as checking email or taking work calls during personal time, which Sonnentag (2012) has established in her original research programme on psychological detachment, many remote workers report psychological boundary-breaches where work-related thoughts, concerns and anxieties creep into personal time even without any overt work-related actions. The ability to psychologically disengage with work at non-work periods is an important recovery process that helps workers to replenish the personal resources that the work engagement consumes. In the *Journal of Organizational Behavior*, Sonnentag and Fritz (2015) established that psychological detachment mediates the association between job stressors and strain: employees who have successfully detached at non-work times exhibit much lower levels of burnout, work-related stress, and psychological exhaustion compared to those who are still thinking about work-related issues.

Ashforth et al. (2000) offered valuable theoretical background to the comprehension of why the use of boundary-setting strategies is more effective in some people and situations than in others. Their study of micro role transitions, the daily behavioral and psychological mechanisms by which people move between the various social roles, determined that the ease and fullness of role transitions is determined by the strength and permeability of the role boundaries on the one hand, the degree of identification that an individual has with each of the roles on the other hand, and the presence of role transition rituals that facilitate psychological role transitions between roles. The conscious development of functional equivalents behavioral rituals, environmental cues, time markers, etc. is of particular importance in the context of remote work, where the physical shift between work and home is not present, and thus allowing effective psychological separation between work and personal roles.

2.8 Contextual and Demographic Moderating Factors

One of the consistent findings from the empirical literature is that there is heterogeneity in the relationship among remote work features, strategies of boundaries setting, organizational support, and performance outcomes like productivity and work-life balance. More specifically, the above-mentioned linkages are systematically moderated by various contexts and individual differences. In order to provide systematic understanding of these moderators, this research classifies them into four separate categories depending on the level of analysis, which includes demographics of the individual, occupational and task-related factors, organizational-level moderators, and individual differences. It should be noted that organization size and type cannot be considered as demographic moderators as they are related to organization, and not individual characteristics. Moreover, previous experience with remote work cannot be viewed as a demographic moderator as well; rather, it represents an acquired individual competence influencing the process of boundaries management.

The importance of gender as an element that moderates remote work has remained consistent. Rahman and Sing (2024) found that the link between work environment quality and productivity was stronger for female than male employees, and speculated that this was due to the greater domestic and care responsibilities shouldered by women in the Malaysian culture. This finding is consistent with other research which has shown that the COVID-19 pandemic exacerbated pre-existing gender inequalities in domestic labour, with remote working women in several countries taking on significantly greater increases in domestic labour (homeschooling and childcare, housework) than men. These factors suggest that gender is an important moderator in the analysis of remote work.

Industry and profession form is a second moderating factor. Lorentzon et al. (2024) in auditing and Staniec et al. (2023) in higher education both showed that the degree of in-person interaction, real-time knowledge co-construction and proximity to resources and clients are key factors in moderating the productivity and satisfaction impacts of remote working. The tasks undertaken - whether mainly independent and routine, or

collaborative and judgmental, significantly moderates the productivity and work-life implications of remote working, and highlights the need for industry-specific analyses.

A third category of moderators is organisational factors such as size and type. Rahman and Sing (2024) report that employees of multinational corporations perceive greater sufficiency of technological resources than those of domestic organisations, reflecting the greater resource availability of larger, more globally experienced organisations. Wagan and Sidra (2025) also found that organisations with more formalised remote work arrangements - typically larger and more internationalised organisations - experienced better remote work outcomes than those with more ad hoc arrangements. Organisation type and size therefore represent the resource endowments that COR Theory suggests are the key determinant of remote work outcomes.

Another set of factors that moderate remote work involves individual differences in characteristics such as past experience with working remotely and self-regulation capability. Fathima (2025) reported that employees with more experience of remote work had greater outcomes than those for whom the pandemic marked their first experience of sustained remote working, suggesting that remote work management is a skill that can be learned. This finding was supported by Galanti et al. (2021), who found that employees who voluntarily worked remotely prior to the pandemic were more adaptable and better managed boundaries than those without prior experience. Self-regulation capacity, the capacity to plan, initiate and sustain behaviours in line with personal goals in the absence of external structure - is also identified in the theoretical literature as an important personal resource for successful remote working (Hobfoll, 1989).

Table 4 demonstrates four categories of moderators discussed above along with specific examples used in the research model and are controlled and moderated in the empirical analysis in Chapter 4.

Table 4: Categories and Specific Moderating Factors Incorporated in the Conceptual Framework

Category	Moderating Factors
Demographic	Gender ; Age group
Occupational / Contextual	Industry sector ; Nature of work tasks (collaborative vs. Independent ; routine vs. Judgment-based)
Organizational	Organization size ; Organization type (MNC vs. Domestic) ; Maturity of formal remote work policies
Individual Difference	Duration of remote work experience ; Personal self-regulation ability and boundary management competency

Note. Modifying variables are classified based on types and not per study. Organization size and type, as well as length of remote work tenure, are considered organizational and individual difference modifying variables, respectively, and not demographic variables.

2.9 Conceptual Framework and Summary

The literature analysis conducted in the sections above is supportive of the development of a conceptual model that would combine the theoretical knowledge of Boundary Theory and COR Theory with the empirical evidence of the remote work literature to give a consistent theoretical explanation of the factors that determine the productivity and work-life balance of employees working remotely.

The model suggests that the productivity of employees and work-life balance in remote working environments depend on two main types of independent variables, namely, personal strategies of setting boundaries and organizational support. Positive predictors of productivity and work-life balance are suggested to be personal boundary-setting strategies, which include temporal, spatial, behavioral, and psychological domain separation strategies. Employees who use more deliberate and effective boundary-setting strategies will report increased productivity, since explicit boundaries between work and personal time will allow them to engage in work activities during working hours in a focused and sustained manner, lessen the mental load of domain management, and lead to effective psychological recovery during personal time. They also report having a higher work-life balance, since working boundaries help avoid the intrusion of work

demands on personal time and activities, and retain the personal resources, time, energy, attention, capacity to engage in psychological detachment, which are critical to personal wellbeing and recovery (Sonnentag, 2012; Hobfoll, 1989).

The second major positive predictor of the two outcome variables is suggested to be organizational support, which includes policy flexibility, quality of managerial communication, provision of technological resources, and social support mechanisms. It is anticipated that employees with high and multidimensional organizational support will report increased productivity and improved balance since organizational support increases the resource stocks that COR Theory determines are critical to effective coping with the increased demands of remote work. In line with the moderation hypothesis based on COR Theory, organizational support should enhance the effectiveness of individual boundary-setting strategies and partially offset individual shortcomings in boundary management capacity, producing an interaction effect that is greater than the sum of the effect of each factor.

The conceptual framework also takes into consideration the role of contextual and demographic variables such as gender, industry context, type of organization, and individual differences in terms of experience of remote work and ability to self-regulate as moderating variables that affect the nature of the relationships between the key explanatory variables and the outcome variables. The empirical study that is presented in the following chapters is aimed at testing the predictions that have been made by this framework with the help of a quantitative survey approach that allows studying all the variables that are of interest and their interactions at the same time.

In light of the theoretical and empirical review carried out in this chapter, four formal hypotheses are formulated for testing empirically as follows:

H1a: There is a positive relationship between personal boundary setting strategies and employee productivity such that those employing strong personal boundary setting strategies will have higher productivity.

H1b: There is a positive relationship between personal boundary setting strategies and work-life balance such that those employing strong personal boundary setting strategies will experience better work-life balance.

H2a: There is a positive relationship between organizational support and employee productivity such that those perceiving high organizational support will experience high productivity in a remote work context.

H2b: There is a positive relationship between organizational support and work-life balance such that those perceiving high organizational support will have good work-life balance.

The four hypotheses are tested empirically in Chapter 4 as presented.

Overall, this literature review has developed the theoretical background and empirical setting of the current research. It has shown that the consequences of remote work on employee productivity and work-life balance are profound and complex; that they are co-created by personal strategies of boundary-setting and organizational support; that Boundary Theory and COR Theory are powerful and complementary analytical frameworks that the current empirical study is aimed at filling. Chapter 3 outlines the methodology in which this investigation is going to be carried out.

3 Methodology

In this chapter, the research design, sampling strategy, instrumentation, and analytical strategy are described to explore the effects of personal boundary-setting strategies and organisational support on employee productivity and work-life balance among remote workers. The chapter ends with a discussion on validity, reliability and ethical considerations. The general research design is a sequential overview as shown in Figure 5.

3.1 Research Design

The research is based on a positivist, deductive research philosophy. Positivism believes that the social world can be objectively examined by using systematic measurement and statistical analysis to produce findings that can be replicated and generalized outside the immediate context of the study (Saunders, M., Lewis, P., & Thornhill, A. 2019; Creswell, J. W., & Creswell, J. D. 2018). The deductive research approach follows from this research philosophy: theories reviewed in Chapter 2 - Boundary Theory (Nippert-Eng, 1996; Clark, 2000), Conservation of Resources Theory (Hobfoll, 1989) and the Job Demands-Resources Model (Bakker & Demerouti, 2007) - yielded specific hypotheses that were tested through the design of the data collection tool and the statistical analysis procedures.

The survey design was a quantitative, cross-sectional survey. The quantitative approach is suitable as the research question calls for the systematic measurement of relationships between multiple variables in a sample large enough to allow statistical inference (Saunders et al., 2019). The cross-sectional design, in which data are collected from all participants at a single point in time - is in line with the norm in quantitative studies of remote work (Galanti et al., 2021; Pensar & Rousi, 2023) and appropriate here because the aim is to study the relationships among constructs as they currently stand rather than to understand how they change over time. The main weakness of this design, the lack of ability to determine the direction of causality, is admitted in the conclusions of the study.

3.2 Sampling Strategy

The study's target population is employees currently working remotely, either full-time or hybrid, in multiple countries, industries and types of organizations. Participants were selected based on three criteria: they must be aged 18 years or older; they must be full-time, part-time, self-employed or freelance employees; and they must work remotely at least part-time during the week. As no sampling frame is available of the target population across industries and countries, a non-probability sampling technique was applied, using a combination of convenience and snowball sampling (Saunders et al., 2019; Babbie, 2020). This is typical of quantitative studies on remote work (Galanti et al., 2021; Rañeses et al., 2022), and is suitable when a population is inaccessible. Four recruitment strategies were used: the researcher's LinkedIn connections and related professional groups; social media groups for remote workers; direct outreach to HR managers of partner organizations; and snowball sampling by the first wave of participants.

The desired sample size of 50-100 respondents was dictated by multiple regression analysis. Following Green's (1991) rule of thumb $N \geq 50 + 8m$ (where m is the number of predictors) leads to a minimum of $N = 82$ with four predictors. The final sample of 90 participants meets this requirement and offers adequate power for the planned analyses ($p < .05$).

3.3 Sampling Profile

The survey was filled out by 90 respondents. Three respondents did not answer background questions and were included in scale analysis; partial answers to background questions were considered as missing to be used descriptively. Table 5 shows the obtained sample profile based on the data obtained.

Table 5: Profile of the Achieved Sample (N = 90)

Characteristic	Category	N (%)
Gender	Male	46 (51%)
	Female	40 (44%)
	Not Stated	4 (4%)
Age Group	Under 25	29 (32%)
	25-40	45 (50%)
	40-60	11 (12%)
	60 and above	2 (2%)
	Not stated	3 (3%)
Employment Status	Full-time employee	27 (30%)
	Part-time employee	32 (36%)
	Self-employed/freelancer	27 (30%)
	Not stated	4 (4%)
Industry	IT / Technology	20 (22%)
	Education	20 (22%)
	Public Sector	12 (13%)
	Banking / Finance	13 (14%)
	Healthcare	11 (12%)
	Other / Not stated	14 (16%)
Remote Work Duration	Less than 1 year	32 (36%)
	1–2 years	26 (29%)
	3–5 years	13 (14%)
	More than 5 years	16 (18%)
Remote Work Pattern	Fully remote	16 (18%)
	Mostly remote	16 (18%)
	Hybrid	34 (38%)
	Mostly office-based	21 (23%)

Note. Percentages are rounded to the nearest whole number. "Not stated" reflects missing background responses (n = 3–4 per item).

The sample is mostly between 25 and 40 years old (50%) and has an almost equal gender balance. The largest proportion of the sample (36%) is part-time employees, followed by full-time and self-employed or freelance (30% each). A wide range of industries are represented, with 22% in IT/Technology and 22% in Education. Most of the sample (65%) has less than two years of remote work experience and the most common work arrangement is hybrid (38%), which is the most common post-pandemic work arrangement in knowledge-based jobs.

There are some key characteristics of the sample that must be taken into account. First, the presence of freelancers and self-employed workers ($n = 27$, 30%) raises a conceptual issue: freelancers tend to work remotely as a structural feature rather than an organizational arrangement, and they are not in an employer-employee relationship, which is a key construct of the present study - organizational support. As such, their responses to organizational support items may reflect a different (and often non-existent) institutional context, adding noise to the construct. The second factor that affects response comparability is that part-time workers ($n = 32$, 36%) have fundamentally different boundary management relations to those of full-time workers. Third, 36% of employees indicated less than a year of remote work experience, so it is possible that many of the respondents are still in the process of adapting to their new work arrangements rather than exhibiting established behavioural patterns (Fathima, 2025; Galanti et al., 2021), which have shown to be a moderating factor. Fourth, the national diversity of the sample raises cultural differences in the understanding of key constructs such as boundary management, work-life balance and organizational support that cannot be fully accounted for in this study, given that research has shown that these concepts are largely influenced by national culture (Pensar & Rousi, 2023; Rañeses et al., 2022). These are discussed in detail in Chapter 5.

3.4 Instrumentation

The data were gathered through a self-administered online questionnaire using Google Forms. This mode of delivery was chosen for its ability to reach a geographically diverse sample, and eliminate interviewer bias, which is the standard method of data collection

in quantitative remote work studies (Galanti et al., 2021; Pensar & Rousi, 2023; Rañeses et al., 2022). The questionnaire had 26 items divided into two parts. Section 1 included six demographic variables (Q1-Q6): age, gender, employment status, industry, length of remote work and remote work pattern. Part 2 contained 20 five-point Likert-scale items (items 7-26; 1 = Strongly disagree, 5 = Strongly agree) that assessed four constructs in the study:

- Personal Boundary-Setting Strategies (Q7-Q11, 5 items): temporal boundary management (Q7, Q9), after-hours communication avoidance (Q8), psychological detachment (Q10), and availability communication (Q11). Based on Kreiner, Hollensbe, and Sheep (2009) and ten Brummelhuis and Bakker (2012).
- Organizational Support (Q12-16, 5 items): availability of remote work resources (Q12), manager communication (Q13), organizational flexibility (Q14), work-life balance support (Q15) and trust in manager (Q16). Adapted from Eisenberger, Huntington, Hutchison, and Sowa (1986) and Pensar and Rousi (2023).
- Employee Productivity (Q17-Q21, 5 items): attention and focus (Q17), task completion (Q18), work quality (Q19), productivity compared to others (Q20), and efficiency (Q21). Adapted from Koopmans et al. (2011) and Galanti et al. (2021).
- Work-Life Balance (Q22-26, 5 items): work-personal life separation (Q22), work interference with personal time (reverse scored) (Q23), personal time sufficiency (Q24), stress recovery (Q25) and overall quality of life (Q26). Based on Hayman (2005) and Sonnentag (2012).

The questionnaire took about 7-8 minutes to complete. The questionnaire was pre-tested in 10 eligible participants. This resulted in minor clarifications to wording of three items, but no items were removed.

3.5 Analytical Strategy

We used IBM SPSS Statistics (Version 27) for all analyses. The analysis plan comprised four steps. First, data preparation involved checking for missing values, calculating composite scale scores (unweighted mean of items) and examining the distributional characteristics of the items through descriptive statistics, skewness and kurtosis. The

item Q23 ('My personal time is usually influenced by work') was reverse-scored before the Work-Life Balance composite was calculated so that all items would be positively scored in the composite (i.e. higher scores would indicate better balance). Second, we examined the reliability of each scale using Cronbach's alpha (α), with a minimum acceptable value of .70 (Nunnally & Bernstein, 1994). Item-level analysis (corrected item-total correlation and alpha if item deleted) was used to identify items that were negatively impacting on scale reliability, and to see whether their exclusion would be statistically warranted. This involved removing items with an item-total correlation of less than .20 and whose removal significantly improved alpha. Based on this analysis, three items were excluded from analysis: Q10 from the Boundary-Setting scale ($r = .21$; α improved from .632 to .658), Q16 from the Organizational Support scale ($r = .13$; α improved from .684 to .748), and Q23 from the Work-Life Balance scale ($r = -.15$ after reverse-scoring; α improved from .439 to .658). The complete item-level analysis is shown in Table 6 and the new reliability and descriptive statistics for the four scales are given in Table 7.

Table 6: Item-Total Correlations and Alpha-If-Item-Deleted for All 20 Scale Items (N = 90)

Item	Question (abbreviated)	Item-Total r	α if Deleted	Decision
Q7	I maintain regular working hours when working remotely	.577	.463	Retain
Q8	I do not check work messages during off time	.350	.592	Retain
Q9	I have a clear schedule that helps me end my working day	.418	.565	Retain
Q10	During personal time I mentally disengage from work	.210	.658	Remove
Q11	I clearly communicate my availability to colleagues	.382	.582	Retain
Q12	My organization provides the resources I need to work from home	.469	.609	Retain

Q13	My manager communicates effectively when I work remotely	.543	.588	Retain
Q14	My organization is flexible	.542	.589	Retain
Q15	My organization promotes a good work-life balance	.500	.598	Retain
Q16	I am trusted to work independently	.133	.748	Remove
Q17	I focus effectively when working from home	.385	.633	Retain
Q18	I complete assignments on time when working remotely	.526	.569	Retain
Q19	My work quality remains high when working remotely	.385	.633	Retain
Q20	I find working from home more productive	.347	.649	Retain
Q21	Remote working allows me to be efficient	.475	.593	Retain
Q22	I can maintain separation of work and personal life	.402	.372	Retain
Q23	My personal time is usually influenced by work (R)	-.146	.658	Remove
Q24	I have sufficient time for personal activities	.449	.275	Retain
Q25	I can recover from work stress when not at work	.373	.310	Retain
Q26	Remote work has improved my overall quality of life	.446	.259	Retain

Note. (R) = reverse-scored item. Item-total r values below .20 are the primary criterion for removal, confirmed by meaningful improvement in α -if-deleted.

Table 7: Descriptive Statistics and Reliability Coefficients: Original and Revised Scales (N = 90)

Scale	Items Used	Mean	SD	Range	Original α	Revised α
Personal Boundary-Setting	Q7, Q8, Q9, Q11	3.43	0.69	1–5	.632	.658

Organizational Support	Q12, Q13, Q14, Q15	3.48	0.74	1–5	.684	.748
Employee Productivity	Q17–Q21	3.60	0.64	1–5	.667	.667
Work-Life Balance	Q22, Q24, Q25, Q26	3.40	0.72	1–5	.439	.658

Note. SD = Standard Deviation. Original α = Cronbach's alpha for the full 5-item scale. Revised α = alpha after removal of the problematic item identified in Table 7. All subsequent analyses use the revised scale composites. The Employee Productivity scale retained all five items as no single item deletion produced a meaningful improvement.

Third, bivariate correlations (Pearson product-moment correlation coefficients) were computed for all four revised scale composites to identify correlations and check for multicollinearity before regression. Cohen's (1992) conventions were applied to interpret effect sizes: $r \approx .10$ (small), $r \approx .30$ (medium), $r \approx .50$ (large).

Fourth, hierarchical multiple linear regression was used to test the four hypotheses. Two models were tested, one for each of the two dependent variables (Employee Productivity; Work-Life Balance). Each model had two blocks: Block 1 comprised six background and demographic control variables (age, gender, employment status, industry, remote work duration, remote work pattern) to explain variance in the dependent variables; Block 2 comprised the two main independent variables (Personal Boundary-Setting Strategies and Organizational Support). The incremental R^2 (ΔR^2) for Block 2 is the variance in each outcome variable explained by the theoretical predictors, beyond the variance explained by the demographic control variables. We report unstandardised (B) and standardised (β) regression coefficients, standard errors, t-statistics, p-values, R^2 , adjusted R^2 and ΔR^2 . The assumptions of regression (linearity, homoscedasticity, normality of residuals, absence of multicollinearity - VIF < 10) were checked before interpreting results (Saunders et al., 2019). Table 8 summarises the four hypotheses and their statistical tests.

Table 8: Research Hypotheses and Analytical Tests

H	Hypothesis	Statistical Test
H1a	Stronger personal boundary-setting strategies are positively associated with employee productivity.	Pearson r ; hierarchical regression (DV1)
H1b	Stronger personal boundary-setting strategies are positively associated with work-life balance.	Pearson r ; hierarchical regression (DV2)
H2a	Higher organizational support is positively associated with employee productivity.	Pearson r ; hierarchical regression (DV1)
H2b	Higher organizational support is positively associated with work-life balance.	Pearson r ; hierarchical regression (DV2)

Note. DV1 = Employee Productivity; DV2 = Work-Life Balance. All hypotheses are tested using the revised scale composites reported in Table 3.3.

3.6 Validity, Reliability, and Ethical Considerations

The construct validity of the scales was supported in three ways: adaptation of previously validated scales (Kreiner et al., 2009; Eisenberger et al., 1986; Koopmans et al., 2011; Hayman, 2005); systematic mapping of item content to the theoretical dimensions identified in the literature review; and convergent validity testing through item-total correlations and alpha coefficients. The item-level analysis reported in Section 3.5 and Table 7 offers empirical evidence of item-level construct validity: items with low item-total correlations were removed not only because of psychometric concerns but because low correlations suggest that the items are not tapping into the same construct as the other items in the scale (which is a validity issue).

The original scales' reliability issues must be acknowledged. Prior to the item removals, two scales were well below the .70 threshold: Personal Boundary-Setting ($\alpha = .632$) and Work-Life Balance ($\alpha = .439$). After the item-level changes outlined in Section 3.5 (deletion of Q10, Q16 and Q23, respectively), the new alphas for Boundary-Setting (.658), Organizational Support (.748) and Work-Life Balance (.658) are considerably improved. Organizational Support now surpasses the threshold. The Employee Productivity scale ($\alpha = .667$) remains slightly below the threshold; no item deletion made a significant

difference, so all five items are retained with this caveat in mind. These reliability issues are likely due to two reasons: the use of brief 5-item scales derived from longer parent scales, which will tend to lower alpha (Nunnally & Bernstein, 1994), and the very diverse sample encompassing a range of industry sectors, employment types and nationalities, which introduces substantive variability in how respondents perceive and experience boundary management and work-life balance. Consequently, the results for the Employee Productivity and Work-Life Balance scales should be interpreted accordingly, and this caveat is discussed in more detail in Chapter 5.

There are several other issues that might affect validity. The cross-sectional design means we cannot infer causation: significant associations between predictors and outcomes cannot be interpreted as causal. Common method bias - the possibility of an inflated correlation between predictor and outcome variables when both are measured using the same self-report questionnaire is a concern (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Preventative measures were taken: items measuring different constructs were mixed throughout the questionnaire; respondents were told there were no right or wrong answers; and one item (Q23) was negatively worded to minimize uniform response tendency. In Chapter 4 we conduct a post-hoc test of this threat using Harman's single factor analysis. With regard to external validity, the non-probability sampling design precludes statistically generalizing the results to the population of all remote workers. The diversity of the sample in terms of industry, employment status, and remote work arrangements, does, however, enhance the potential generalizability to a variety of work settings. Crucially, the international nature of the sample - while providing diversity in the sample also means cultural differences in the meaning of key concepts such as the norms for boundary management and expectations of organizational support, a factor that could not be accounted for in this study and is further discussed in Chapter 5.

Finally, the current approach tests only the direct effects of boundary-setting strategies and organizational support on the two dependent variables. The current analysis does not test for interaction effects for instance, whether organizational support moderates the relationship between boundary-setting and productivity. Such interaction effects are

predicted by COR Theory, as outlined in Chapter 2, and the absence of their testing is a limitation of the analysis that is discussed and recommended for future research in Chapter 5.

Research procedures followed the ethical guidelines of the University of Vaasa and the EU General Data Protection Regulation (GDPR). All participants provided informed consent via an information screen at the beginning of the survey. There was no compulsion to participate and people could withdraw at any time before submitting their responses. No personal information (such as names, email addresses or IP addresses) was gathered. The data are securely stored in a password-protected cloud-based system accessible only to the researcher and the thesis supervisor.

In all, this chapter has outlined a transparent, theoretically justified and methodologically rigorous research design. The item-level reliability analysis, the frank discussion of sampling issues and the open reporting of scale revisions ensure that the empirical results reported in Chapter 4 are considered with caution. The results of the analysis of the 90 responses are presented in Chapter 4.

4 Empirical Findings

This chapter reports the quantitative findings of the study that investigated the effects of personal boundary-setting strategies and organizational support on employee productivity and work-life balance among remote workers (N = 90). The chapter is structured into five sections: common method bias check (Section 4.1), descriptive statistics of the four scale composites (Section 4.2), bivariate correlation analysis (Section 4.3), two hierarchical multiple regression models to test the four hypotheses (Section 4.4), and a summary of the hypothesis testing (Section 4.5). The analyses were carried out in IBM SPSS Statistics (Version 27) using the updated scale composites outlined in Chapter 3.

4.1 Common Method Bias Check

Given all variables were measured using a single self-report questionnaire at one point in time, common method bias was checked first. Harman's (1976) single factor test was applied by submitting all 17 items retained from the scales to an unrotated principal components analysis. If one factor had explained 50% or more of the variance, common method bias would have been a concern (Podsakoff et al., 2003). The unrotated first factor accounted for 26.1% of the variance in the items, which is much less than 50%. This finding, combined with the procedural precautions outlined in Chapter 3 (interleaved items, one reverse-scored item, and assurances to respondents that there are no correct answers to the questions), suggests there is no serious concern about common method bias affecting the validity of the results.

4.2 Descriptive Statistics

Table 9 shows the descriptive statistics for the four composites. All composites were calculated as the unweighted means of the items identified in Chapter 3: Employee Productivity (Q17, Q18, Q19, Q20, and Q21; $\alpha = .667$); and Work-Life Balance (Q22, Q24,

Q25, and Q26; $\alpha = .658$); Personal Boundary-Setting (Q7, Q8, Q9, and Q11; $\alpha = .658$); Organizational Support (Q12, Q13, Q14, and Q15; $\alpha = .748$).

Table 9: Descriptive Statistics and Reliability Coefficients for the Four Scale Composites (N = 86)

Scale	Items	N	M	SD	Min	Max	Skewness	Kurtosis	α
Employee Productivity	Q17, Q18, Q19, Q20, Q21	86	3.60	0.64	1.80	5.00	-0.75	1.09	.667
Work-Life Balance	Q22, Q24, Q25, Q26	86	3.40	0.72	1.00	5.00	-0.82	1.69	.658
Personal Boundary-Setting	Q7, Q8, Q9, Q11	87	3.43	0.69	1.75	5.00	-0.68	0.07	.658
Organizational Support	Q12, Q13, Q14, Q15	86	3.48	0.74	1.00	5.00	-0.81	1.06	.748

Note. M = composite mean; SD = standard deviation; α = Cronbach's alpha. All items measured on a 1 (Strongly Disagree) to 5 (Strongly Agree) Likert scale. Sample size for BS is 87 as one subject without background information was excluded from scale testing.

The mean scores for the four scales ranged from moderate to moderately positive (3.40-3.60), suggesting that respondents agreed to a moderate degree with statements describing effective boundary management, adequate organizational support, satisfactory productivity and satisfactory work-life balance in remote work arrangements. The highest mean was for Employee Productivity (M = 3.60, SD = 0.64) and the lowest for Work-Life Balance (M = 3.40, SD = 0.72). Standard deviations (0.64 - 0.74) indicated sufficient variability within the sample for regression analysis. All scales had moderate negative skewness (-0.68 to -0.82) and near-normal kurtosis (0.07 to 1.69), indicating a slight tendency for responses to be skewed towards the high end of the scale. This is typical of organizational self-report data (Nunnally and Bernstein, 1994) and, with a sample size of N = 86, is unlikely to significantly affect the regression analysis (Field, 2018).

Of particular interest is the lowest-scoring single item in the survey. The item measuring psychological recovery from work stress during non-work hours (Q25: 'I can recover from

work stress when not at work') had a mean of $M = 3.26$ ($SD = 1.04$) and less than half (47.1%) of respondents agreed or strongly agreed. This item corresponds to the psychological detachment dimension identified by Sonnentag (2012) as important for recovery in remote work, and the less-than-average endorsement of this item suggests that recovering from stress is the most difficult aspect of work-life balance in this sample. In a similar vein, the boundary setting construct that pertains to staying away from any work messages during leisure time (Q8) was the least favoured behavior with just 29.9% of the participants agreeing, indicating that disengagement through technology is adopted by not more than one-third of the respondents.

4.3 Bivariate Correlation Analysis

Table 10 shows the correlation matrix of the four composite scales, using the Pearson product-moment coefficient. Effect sizes are interpreted following Cohen's (1988) conventions: $r \approx .10$ (small), $r \approx .30$ (medium), $r \approx .50$ (large).

Table 10: Pearson Correlation Matrix for the Four Composite Scales ($N = 86$)

<i>Scale</i>	1	2	3	4
Personal Boundary Setting	—			
Organizational Support	.480***	—		
Employee Productivity	.193†	.525***	—	
Work-Life Balance	.445***	.566***	.392***	—

Note. † $p < .10$; *** $p < .001$. Two-tailed significance. $N = 86$ for all correlations.

Organizational Support was the most strongly correlated with both dependent variables: a large positive correlation with Employee Productivity ($r = .525$, $p < .001$) and a large positive correlation with Work-Life Balance ($r = .566$, $p < .001$). These findings offer strong preliminary support for Hypotheses H2a and H2b and are in line with Conservation of Resources Theory, which suggests that organizational support as a condition resource which helps employees cope with the resource demands of working from home, thus preserving performance and well-being (Hobfoll, 1989; Pensar and Rousi, 2023).

Personal Boundary-Setting Strategies were positively and significantly correlated with Work-Life Balance ($r = .445$, $p < .001$), representing a medium-to-large effect, as predicted by Boundary Theory that boundary-setting behaviour (separating and segmenting) preserves time and resources (Nippert-Eng, 1996; Adisa et al., 2022). This offers some initial support for Hypothesis H1b. The association between Boundary-Setting and Employee Productivity, on the other hand, was much smaller and just missed statistical significance ($r = .193$, $p = .075$), providing only preliminary support for Hypothesis H1a that will be tested more rigorously in the regression model.

The two predictors were correlated at a moderate level ($r = .480$, $p < .001$), such that people who felt that their organization supported them more also took more steps to set boundaries. This result seems plausible from a theoretical perspective based on COR theory because organizational resources such as those that allow employees to work remotely and communicate with managers could assist in setting boundaries for individuals (Grenčíková et al., 2024). The implications of this correlation between the two predictors for multicollinearity are discussed in Section 4.4. Lastly, the correlation between Employee Productivity and Work-Life Balance was positive ($r = .392$, $p < .001$), confirming that these are related but distinct outcomes, as Salman Ameen et al. (2023) noted that the two outcomes are interrelated via resource processes.

4.4 Hierarchical Multiple Regression

4.4.1 Model Specification and Assumption Checks

Two hierarchical multiple regression analysis were performed, with each dependent variable. Both analysis involved two blocks. Block 1 included six demographic and background control variables (dummy-coded): age group (reference: Under 25), gender (reference: Male), employment status (reference: Full-time), industry sector (reference: IT/Technology), duration of remote working (reference: Less than one year), and remote work pattern (reference: Mostly office-based). Block 2 entered the two theoretical predictors - Personal Boundary-Setting Strategies (BS) and Organizational Support (OS).

This procedure enables the variance uniquely explained by the theoretical variables (ΔR^2) to be examined.

The assumptions for regression were tested. Plots of standardized residuals vs predicted values did not reveal any systematic pattern or heteroscedasticity. Residuals were not overly skew, as indicated by P-P plots. Variance Inflation Factor (VIF) values for BS (VIF = 1.64) and OS (VIF = 1.54) were well below the recommended cut-off of 10 (Field, 2018), indicating that the correlation between the predictors ($r = .480$) did not result in problematic multicollinearity. Cook's Distance values did not reveal any outliers. Thus, the regression assumptions were deemed to be met.

4.4.2 Model 1: Employee Productivity

The results for the hierarchical regression for Employee Productivity are shown in Table 11. The six demographic control variables in Block 1 accounted for a non-significant 8.5% of the variance in Employee Productivity ($R^2 = .085$, $F(12, 73) = 0.698$, $p = .723$). None of the control variables was a significant predictor. This suggests that the demographic characteristics of the sample - gender, age, employment status, industry, remote work duration and work pattern, are not significant predictors of perceived productivity in this cross-industry sample.

The inclusion of the two theoretical predictors in Block 2 resulted in a large and significant increase in the amount of variance explained ($\Delta R^2 = .290$, $p < .001$), meaning that Boundary-Setting and Organizational Support accounted for an additional 29.0% of variance in Employee Productivity, over and above the control variables. The full model accounted for 37.5% of the total variance ($R^2 = .375$, Adjusted $R^2 = .273$).

In Block 2, only Organizational Support was a significant predictor of Employee Productivity ($B = 0.544$, $SE = 0.100$, $\beta = .627$, $t = 5.457$, $p < .001$). This high standardized coefficient suggests that, all other variables being equal, a one-unit increase in the Organizational Support composite score (on a five-point scale) was associated with a 0.544-unit increase in perceived productivity. This is in line with Conservation of Resources Theory: employees who perceive their organization as offering sufficient resources, flexible policies and good communication from their managers are more likely

to be able to maintain productivity in a remote working environment (Hobfoll, 1989; Galanti et al., 2021; Grenčíková et al., 2024). Personal Boundary-Setting Strategies did not reach statistical significance in the regression model ($B = -0.116$, $SE = 0.110$, $\beta = -.125$, $t = -1.056$, $p = .294$). The small (and slightly negative) coefficient (compared to a positive bivariate correlation of $r = .193$) reflects the suppression of Boundary-Setting's contribution once its variance is accounted for in Organizational Support. Thus, Hypothesis H1a is unsupported.

Table 11: Hierarchical Multiple Regression: Employee Productivity as Dependent Variable (N = 86)

	B	SE	β	t	p
Block 1 : Demographic Controls					
<i>Age : 25–40 (ref : Under 25)</i>	0.162	0.182	.148	0.890	.376
<i>Age : 40–60 (ref : Under 25)</i>	0.254	0.254	.145	1.001	.320
<i>Gender : Female (ref : Male)</i>	0.043	0.140	.033	0.311	.757
<i>Employment : Part-time (ref : Full-time)</i>	-0.028	0.172	-.022	-0.163	.871
<i>Employment : Self-employed (ref : Full-time)</i>	-0.083	0.173	-.063	-0.479	.634
<i>Remote duration : 1–2 yrs (ref : <1 yr)</i>	0.065	0.168	.052	0.389	.699
<i>Remote duration : 3–5 yrs (ref : <1 yr)</i>	-0.195	0.225	-.113	-0.866	.389
<i>Remote duration : >5 yrs (ref : <1 yr)</i>	0.025	0.199	.019	0.126	.900
<i>Pattern : Fully remote (ref : Mostly office)</i>	-0.020	0.223	-.013	-0.091	.928
<i>Pattern : Mostly remote (ref : Mostly office)</i>	0.048	0.211	.031	0.230	.819
<i>Pattern : Hybrid (ref : Mostly office)</i>	0.120	0.186	.086	0.647	.520
Block 1 R ²	.085	F (12, 73)	P = .723		
		= 0.698			
Block 2 : Theoretical Predictors					
Personal Boundary-Setting (BS)	-0.116	0.110	-.125	-1.056	.294
Organizational Support (OS)	0.544	0.100	.627	5.457	< .001
Full model R ²	.375	Adj R ²	ΔR^2	P(ΔR^2)	
		= .273	= .290	< .001	

Note. B = unstandardised coefficient; SE = standard error; β = standardised coefficient. Demographic reference categories: Age = Under 25; Gender = Male; Employment = Full-time; Remote duration = Less than 1 year; Pattern = Mostly office based. *** $p < .001$.

4.4.3 Model 2: Work-Life Balance

The results of the Work-Life Balance are shown in Table 12. Block 1 (demographic controls) was not statistically significant in explaining 15.4% of variance in Work-Life Balance ($R^2 = .154$, $F(12, 73) = 1.360$, $p = .215$). None of the demographic predictors was significant. The fact that the Block 1 R^2 is slightly higher than the Employee Productivity model (15.4% vs. 8.5) indicates that structural work features can be used to explain a bit more variation in balance than productivity outcomes, which Sati and Vats (2024) also find. Block 2 contributed a big and very significant addition to the explained variance ($\Delta R^2 = .303$, $p < .001$). The entire model explained 45.6% of the variance of Work-Life Balance ($R^2 = .456$, Adjusted $R^2 = .367$), the highest R^2 in the research, which means that the theoretical model is especially effective in explaining the results of balance.

Organizational Support was again the dominant and statistically significant predictor ($B = 0.481$, $SE = 0.104$, $\beta = .498$, $t = 4.646$, $p < .001$). The perceived organizational support was significantly higher among employees who reported a significantly better separation of work and personal life, more adequate personal time, better work stress recovery, and overall better quality of life under remote working conditions. This aligns with the prediction of COR Theory that condition resources that are offered by the organization are the main protective factors against resource depletion and its related work-life imbalance (Hobfoll, 1989; Pensar and Rousi, 2023; Naithani, 2025).

Personal Boundary-Setting Strategies were positively related to Work-Life Balance ($B = 0.156$, $SE = 0.115$, $\beta = 0.150$, $t = 1.357$, $p = .179$), but not statistically significant in the regression model. The decrease in the standardized coefficient between $r = .445$ (bivariate) and $\beta = .150$ (regression): the overlap between Boundary-Setting and Organizational Support ($r = .480$): as soon as the organizational support is controlled, the unique variance of the boundary-setting in predicting the balance is significantly minimised. This trend is in line with the fact that successful individual boundary management may be partly facilitated and influenced by the organizational conditions

that facilitate it - a theoretically significant meaning that is further explained in Chapter 5. Hypothesis H1b is partially supported, but not completely based on the regression evidence.

Table 12: Hierarchical Multiple Regression: Work-Life Balance as Dependent Variable (N = 86)

	B	SE	β	t	p
Block 1 : Demographic Controls					
<i>Age : 25–40 (ref : Under 25)</i>	0.226	0.196	.187	1.155	.252
<i>Age : 40–60 (ref : Under 25)</i>	0.396	0.274	.204	1.443	.153
<i>Gender : Female (ref : Male)</i>	0.082	0.151	.058	0.545	.588
<i>Employment : Part-time (ref : Full-time)</i>	0.067	0.185	.047	0.360	.720
<i>Employment : Self-employed (ref : Full-time)</i>	0.105	0.186	.072	0.562	.576
<i>Remote duration : 1–2 yrs (ref : <1 yr)</i>	–0.067	0.181	–.048	–0.372	.711
<i>Remote duration : 3–5 yrs (ref : <1 yr)</i>	–0.308	0.243	–.161	–1.270	.208
<i>Remote duration : >5 yrs (ref : <1 yr)</i>	0.152	0.214	.103	0.712	.479
<i>Pattern : Fully remote (ref : Mostly office)</i>	0.234	0.241	.135	0.972	.334
<i>Pattern : Mostly remote (ref : Mostly office)</i>	0.231	0.227	.134	1.021	.311
<i>Pattern : Hybrid (ref : Mostly office)</i>	0.193	0.200	.124	0.968	.337
Block 1 R ²	.154	F (12, 73) P = .215		= 1.360	
Block 2 : Theoretical Predictors					
Personal Boundary-Setting (BS)	0.156	0.115	.150	1.357	.179
Organizational Support (OS)	0.481	0.104	.498	4.646	< .001
Full model R ²	.456	Adj R ²	Δ R ²	P(Δ R ²)	
		= .367	= .303	< .001	

Note. B = unstandardized coefficient; SE = standard error; β = standardized coefficient. Reference categories as in Table 11. *** p < .001.

4.5 Hypothesis Evaluation Summary

Table 13 provides a summary of the findings of the four hypotheses based on the bivariate and regression analysis.

Table 13 : Summary of Hypothesis Outcomes

Hypothesis	Predicted Relationship	Bivariate r	Regression β	Verdict
H1a	BS \rightarrow Employee Productivity (+)	r = .193, p = .075 [†]	β = -.125, p = .294	Not Supported
H1b	BS \rightarrow Work-Life Balance (+)	r = .445, p < .001***	β = .150, p = .179	Partially Supported
H2a	OS \rightarrow Employee Productivity (+)	r = .525, p < .001***	β = .627, p < .001***	Supported
H2b	OS \rightarrow Work-Life Balance (+)	r = .566, p < .001***	β = .498, p < .001***	Supported

*Note: BS = Personal Boundary-Setting Strategies, OS = Organizational Support. The values of β are based on the complete Block 2 regression model including all demographic controls. [†] p < .10, *** p < .001. Partial evidence supporting H1b stems from a significant correlation between the variables (r = .445) which became insignificant after controlling for their shared variance (β = .150).*

Hypotheses H2a, H2b are completely supported. Organizational Support is a statistically significant and practically large predictor of the Employee Productivity (β = .627, p < .001) and Work-Life Balance (β = .498, p < .001), and it has a large incremental share of variance in both outcomes relative to the demographic controls (ΔR^2 = .290 and .303 respectively). These findings are in line with the prediction of the Conservation of Resources Theory that organizational condition resources are the main factor that determines whether remote workers can maintain effective performance and well-being (Hobfoll, 1989). Hypothesis H1b is partially supported. Theoretically meaningful and significant Bivariate Relationships were observed between Boundary-Setting Strategies and Work-Life Balance (r = .445, p < .001) in line with Boundary Theory. The regression coefficient however, weakened to non-significance (β = .150, p = .179) when Organizational Support was kept constant indicating that the two predictors have a

common ground of explanation. Hypothesis H1a is rejected: Boundary-Setting Strategies did not significantly (bivariate) correlate with Employee Productivity ($r = .193$, $p = .075$) or did not significantly regress ($\beta = -.125$, $p = .294$). Chapter 5 deals with the theoretical and practical implication of these findings.

4.6 Chapter Summary

This chapter has presented empirical findings of the study in a logical order. The common method bias was assuring with the Harman single-factor check (26.1%). The descriptive statistics indicated moderate-positive mean scores in all four scale composites (range: 3.40-3.60) with Employee Productivity the highest and Work-Life Balance the lowest. The least practised dimensions, according to item-level inspection, were psychological stress recovery (Q25, 47.1% agreement) and avoiding off-hours work messages (Q8, 29.9% agreement) in the sample. The correlation analysis revealed that there were large and significant relationships between Organizational Support and the two outcomes ($r = .525$ and $r = .566$), a significant medium-to-large relationship between Boundary-Setting and Work-Life Balance ($r = .445$), and a weak, non-significant relationship between Boundary-Setting and Employee Productivity ($r = .193$). The hierarchical regression models accounted 37.5 % and 45.6 % of the variance in Employee Productivity and Work-Life Balance respectively and the two theoretical predictors added to the model incremental R^2 of .290 and .303 respectively. Organizational Support was the only important predictor in both models. Chapter 5 presents the theoretical interpretation of these results, discussion of limitations and suggestions of future research.

5 Discussion

This last chapter puts the empirical findings in Chapter 4 into perspective of the theoretical frameworks and hypotheses formulated in Chapter 2, and cogitates about the methodological choices in Chapter 3. The chapter is divided into six parts. The results of each hypothesis are discussed in relation to Boundary Theory, Conservation of Resources Theory and the existing body of empirical literature in Section 5.1. Section 5.2 makes theoretical inferences on what the results add to the knowledge. Section 5.3 offers practical conclusions and recommendations towards organizations and managers. The study limitations are recognized in section 5.4. Section 5.5 gives future research directions. In Section 5.6, a general conclusion is given, which directly responds to the main research question.

5.1 Discussion of Findings

The most evident and consistent conclusion of the research is the pivotal place of organizational support in forecasting both the productivity and work-life balance of employees in remote working conditions. The only statistically significant predictor in both regression models was organizational support with large standardized coefficients ($\beta = .627$ with $p < .001$ and $\beta = .498$ with $p < .001$) and incremental R^2 values of .290 and .303 respectively over the demographic controls. Hypotheses H2a and H2b are thus completely confirmed.

These findings are highly in line with the Conservation of Resources Theory predictions (Hobfoll, 1989). COR Theory locates organizational support as a condition resource, one of the most valuable resources that remote workers can have since it acts as a buffer to various resources depletion forms at the same time. By offering sufficient technological infrastructure, flexible work schedules, effective top-level communication, and institutional support of the work-life balance, an organization minimises the personal resource requirements of remote working, and directly restores time, energy, and psychological capacity of employees. The outcome, as COR Theory predicts, is that employees with high support do not go through the loss spiral, where a lack of resources

at the start increases losses later, but rather are placed in a gain cycle, where resource adequacy supports productivity and well-being in the long term (Pensar and Rousi, 2023). The results are in line with the larger body of empirical evidence: Pensar and Rousi (2023) have found organizational support to be the most significant predictor of work-life balance among Scandinavian remote workers; Wagan and Sidra (2025) have established that structured leadership practices were the strongest predictors of virtual team productivity; and Galanti et al. (2021) have found that the current research generalizes these results to a multi-national, cross-industry sample.

One such nuance is the particular dimensions of organizational support. The item-level analysis presented in Chapter 4 revealed that organizational flexibility (Q14: 66.3% agreement), active promotion of work-life balance (Q15: 65.1% agreement), and managerial communication quality (Q13: 52.3% agreement) and resource provision (Q12: 51.2% agreement) were most and least consistently endorsed in the scale, respectively. This is theoretically important because Wagan & Sidra (2025) explicitly talk about the quality of communication as one of the underused and yet highly leavargable facets of organizational support in remote settings. The comparatively reduced acceptance of this dimension in the current sample could be a tangible gap in the current managerial practice, and this is covered in the practical implications in Section 5.3.

Hypothesis H1b - the stronger personal strategies of setting boundaries would be positively related to the better work-life balance, is partially supported. Boundary-Setting and Work-Life Balance showed significant and medium-to-large bivariate correlation ($r = .445$, $p < .001$), which is in line with the Boundary Theory that predicted a deliberate temporal, spatial, behavioural, and psychological domain separation to protect personal resources and minimise work-home interference (Nippert-Eng, 1996; Clark, 2000). However, when Organizational Support was added in the hierarchical regression at the same time, the Boundary-Setting coefficient became non-significant ($\beta = .150$, $p = .179$). The most likely reason is that the bivariate relationship is partially due to shared variance with Organizational Support, which also had a significant relationship with Boundary-Setting ($r = .480$, $p < .001$). This phenomenon is theoretically justified by the COR Theory, which says that organizational resources, especially remote

work policies, flexible scheduling, and support of boundary behaviors by managers, can proactively aid individual boundaries. By legitimising and encouraging the maintenance of boundaries, an organization would more likely encourage employees to keep their working hours, communicate their availability, and avoid pressure to communicate after-hours. In this sense, what is present in the bivariate analysis as a direct influence of individual boundary-setting on work-life balance may be partially due to the indirect route in which the organizational conditions facilitate that boundary behaviour. Grenčíkova et al. (2024) supported this interpretation by demonstrating that the efficacy of individual boundary practices was greatly mediated by organizational policy context, and Adisa et al. (2022) by demonstrating that micro-bordering practices were best adopted in organizational contexts that legitimised them.

A second H1b consideration is the items that were retained following the reliability analysis in Chapter 3. The four items that are retained represent mostly temporal and communicative boundary strategies. The psychological detachment item - the capacity to be psychologically disengaged with work during personal time (Q10) was dropped off the scale because it had a low item-total correlation. Sonnentag (2012) and Sonnentag and Fritz (2015) have defined that the most proximal mechanism by which boundary management generates the benefits of recovery and well-being is psychological detachment. The fact that it was not included in the revised scale could have weakened the predictive relationship between Boundary-Setting and Work-Life Balance and this is a significant measurement limitation.

Hypothesis H1a: The stronger personal boundary-setting strategies would have a positive relationship with employee productivity, neither the bivariate ($r = .193, p = .075$) nor the regression analysis ($\beta = -.125, p = .294$) supports it. This could be attributed to a number of sample-specific and measurement-related factors. First, the sample consists of a significant percentage of freelancers and self-employed workers ($n = 27, 30\%$), who work remotely as a structural aspect of their work, but not as an employer-provided arrangement. In this case, the boundaries management can be based on entirely different mechanisms - client demands, contract deadlines, portfolio management - which are not reflected in items designed to work with employed workers, bringing

about heterogeneity, which may be diluting the association. Second, 36 percent of the respondents had less than one year of remote working experience, which means that many are still in the process of shaping their boundary practices, and the connection between the mentioned strategies and the actual productivity results might be less strong and more fluctuating at this phase (Fathima, 2025; Galanti et al., 2021). Third, the theoretical route between the management of boundaries and productivity is always more indirect than the route to work-life balance: boundaries safeguard personal time, which provides recovery, which restores cognitive resources, which maintains performance. This causal chain of events might need longitudinal data to find consistently in a cross-sectional study. Lastly, the slightly negative regression coefficient ($\beta = -.125$) - although it is a positive bivariate correlation, is an indication of a statistical suppression effect where Organizational Support takes up the shared variance, and the remaining unique variance of Boundary-Setting is unexpectedly negative. This is an analytical artefact as opposed to evidence that boundary-setting is detrimental to productivity.

The relationship between Employee Productivity and Work-Life Balance were also positively and significantly related ($r = .392, p < .001$), which supports the fact that they are inter-related but different constructs. This correlation is in line with the observation of Salman Ameen et al. (2023) that balance and productivity are mutually reinforcing, as they have common resource pathways, and the prediction of COR Theory that the two outcomes are the same underlying resource sufficiency: employees who have sufficient resource stocks at their disposal can perform better and balance their lives more effectively (Hobfoll, 1989).

5.2 Theoretical Conclusions

The paper contributes to the theoretical knowledge of the outcomes of remote work in three ways. First, it offers cross-industry quantitative support of primacy of organizational support as a predictor of remote work outcomes, which is in line with the COR Theory prediction that condition resources offered institutionally serve as high-leverage buffers against resource depletion. The high regression coefficients of

Organizational Support on both models ($\beta = .627$ productivity; $\beta = .498$ balance) substantiate that the theoretical focus on institutional resources in COR Theory is empirically justified in a large sample of remote workers (Scandinavian), and generalizes the results of Pensar and Rousi (2023) to a wider cross-national sample.

Second, the weakening of the regression coefficient of Boundary-Setting: a significant bivariate correlation is reduced to a non-significant partial coefficient when Organizational Support is added back in indicates that personal boundary management and organizational support are not acting as two independent additive predictors to the results of remote work. Rather, they seem to be inseparable processes, where the extent to which individual boundary-setting strategies are successfully implemented depends in part on organizational support. This observation requires theoretical elaboration at the boundary of Boundary Theory and COR Theory: the theoretical work in the future must express better how organizational resource settings influence the ability and incentive of people to engage in deliberate boundary management, and not to separate the two levels of analysis. Third, the item-level result that psychological stress recovery was the most contested aspect of the entire survey, with less than half of the respondents (47.1%) giving an unambiguous yes to the question of whether they could recover work stress during personal time is a substantively significant finding. It echoes Sonnentag (2012) theoretical claim that psychological detachment is the most vulnerable and most important aspect of recovery in remote work contexts since the elimination of physical distance between work and home forms an unbroken landscape of work-related stimuli that hinders mental disengagement. This result indicates that recovery and the factors that facilitate or hinder it should be given a greater focus in theoretical models of the outcomes of remote work than they are given at present.

5.3 Practical Conclusions and Recommendations

The results have clear and direct implications on organizations, managers and HR practitioners who are involved in designing and managing remote work arrangements. There are four recommendations that are based on the evidence.

To start with and most importantly, organizations must consider the creation of an effective organizational support infrastructure as the priority underpinning remote work programmes as opposed to entrusting remote workers to personal coping mechanisms. It implies the provision of sufficient technological resources and good IT support to all remote workers, the formalization of remote work policies, regular communication, and the flexibility of remote work policies, as well as training of managers in particular skills of remote team management, such as effective asynchronous communication patterns, setting clear performance expectations, and active monitoring of wellbeing. Second, the item-level analysis revealed that the quality of managerial communication (Q13: 52.3% agreement) was one of the least supported dimensions of organizational support in this sample, i.e. less than half of the respondents were categorical that their managers effectively communicate in remote environments. Organizations must have formal communication standards in place to communicate with remote teams such as the regular one to one check-in, written communication standards, and clear expectations of availability and should treat the quality of managerial communication as a performance metric to be measured and not a presumed background state.

Third, the fact that psychological stress recovery was the least-endorsed item in the research (Q25: 47.1% agreement) directly translates to practical implications. Organizations ought to proactively express it that after-hours availability is not anticipated and implement this standard at the highest level of the management structure. Some of the practical steps involve adopting organizational policies of quiet-hours which deter non-urgent communications during hours outside of the agreed working hours, understanding the maintenance of boundaries versus constant-on availability, and providing employees with resources and guidance on psychological recovery practices, e.g. structured end-of-day routines that can substitute the physical commute.

Fourth, the sample composition shows that there is important heterogeneity that organizations need to factor in while creating remote work support services. The qualitatively different needs of boundary management and the different relationship to organizational support of part-time workers (36% of this sample) and self-employed or

freelance workers (30% of this sample) are qualitatively different than that of full-time employees. The newer remote workers (36% less than one year experience) are more vulnerable to boundary erosion and resource depletion and should be provided with more formalized instructions on the boundaries management practices and more frequent contact with the manager during the initial adjustment time.

5.4 Study Limitations

A number of limitations should be recognized distinctly, as they determine the level of confidence, within which the findings can be interpreted and generalized.

To begin with, the cross-sectional research design does not allow making a causal inference. The regression results define strong relationships among the predictors and outcomes but are not able to define that the increase or decrease of organizational support or boundary behaviour leads to an increase or decrease of productivity or balance. Reverse causality is also a possibility: the more employees feel that they are more productive, the more favourable they will rate their organization, and the better work-life balance employees already have, the lighter the boundary management is going to be. To determine causal direction, longitudinal or experimental designs are necessary.

Second, the measurement of all the variables was based on a single self-report questionnaire, which was conducted simultaneously, which can also be a threat of common method bias. Even though the post-hoc Harman single-factor test (26.1% of variance in the first unrotated factor) offered good confidence against this threat, this test is recognized to be a necessary but not sufficient protection (Podsakoff et al., 2003; Podsakoff et al., 2012). In future research, self-report may be used with objective performance data, like productivity ratings by managers or records of tasks accomplished, to decrease the method-shared variance.

Third, three out of four composites have a lower scale reliability than the traditional $\alpha = .70$ level (Boundary-Setting $\alpha = .658$; Employee Productivity $\alpha = .667$; Work-Life Balance $\alpha = .658$). Though these values are agreeable when used in short, adapted scales when a wide range of sample is used (Nunnally and Bernstein, 1994), it reflects a lack of

precision in the measurement. The loss of Q10 - the psychological detachment item - of the Boundary-Setting scale is especially significant drawback since it removes the theoretically nearest pathway between boundary management and recovery outcomes, which may dilute the found relationship between Boundary-Setting and Work-Life Balance.

Fourth, 90 respondents make up a non-probability convenience and snowball sample, which was recruited via LinkedIn and online communities of remote workers. This implies that the sample is not representative of the entire population of all remote workers and results cannot be statistically extrapolated to the outside world. The sample is probably biased towards the more digitally active and professionally networked workers than the typical remote worker. The large percentages of freelancers (30) and part-time workers (36) are also not typical of the sample compared to the mostly full-time employed groups, which are the subjects of most benchmark studies.

Fifth, the sample is culturally diverse, but there is no modelling or control of national and cultural differences. The norms of remote work, preferences of boundaries, expectations of managerial communication and understanding of work-life balance differ significantly in the context of different cultures (Pensar and Rousi, 2023; Rañeses et al., 2022). Cultural variance thus gets absorbed in unexplained error variance and may decrease the precision and obscure significant subgroup differences.

Sixth, the model of analysis only tests the direct effects. The interaction effect postulated in the conceptual framework in Chapter 2 that is, whether Organizational Support moderates the relationship between Boundary-Setting and the two outcomes was not tested since the sample size of $N = 86$ lacks sufficient statistical power to conduct moderation tests with the number of predictors and controls that the models incorporate. This implies that an empirically unexplored one of the most theoretically interesting predictions of the study is left.

5.5 Directions for Future Research

The results and shortcomings indicate that there are five directions of future research. First, longitudinal designs should be employed in future research to confirm the causality

of the relationships between variables proposed by the cross-sectional correlations here. A repeated-measures design, which involves measuring data at several points in time during the first year of remote working, would enable researchers to determine the temporal precedence, the absence of reverse causation and the finding of the COR Theory prediction of spirals of resource loss and gain over time (Hobfoll, 1989). Second, and most directly inspired by the current findings, the interaction effect of organizational support and personal boundary-setting strategies needs to be tested in the future. The present research discovered that the two predictors have a strong correlation and indications of a coupling of the two regression coefficients, which indicates that organizational support can moderate the efficacy of personal boundary management. A larger sample ($N \geq 200$ would be sufficient to have sufficient power to test interaction) would be in a position to directly test the hypothesis that the relationship between the setting of boundaries and outcomes is stronger when organizational support is high as COR Theory and the conceptual framework in Chapter 2 would predict.

Third, a more detailed measurement tool that directly captures the four dimensions of the management of the boundaries, namely, temporal, spatial, behavioural, and psychological, should be employed in future studies, with psychological detachment being a scale in its own right, not a part of a larger composite. Since the evidence that detachment is the theoretically closest mechanism between boundary management and recovery and well-being outcomes is strong (Sonnentag, 2012; Sonnentag and Fritz, 2015), its independent measurement would enable future researchers to determine whether the non-significant regression coefficient of boundary-setting in the current study is particular to the retained behavioural and temporal items or extends to psychological disengagement as well. Fourth, probability sampling and larger and culturally stratified samples that allow country-level comparisons and cross-cultural moderation tests should be used in future studies. Whether the pre-eminence of organizational support over individual boundary-setting is a universal phenomenon across cultures or whether it is a specific phenomenon to some national contexts, is an open and practically significant question to which the current study cannot provide answers.

Fifth, future studies should be more discriminating between full-time employees, part-time employees, or self-employed or freelance workers, either by limiting the sample to one category, or by explicitly modeling employment type as a moderator. Since the processes of platform-based and freelance work are constantly growing, the issue of whether the dynamics of boundary management and organizational support differ between non-standard workers is a practically pressing research question that cannot be answered with the help of the mixed sample of the current study.

5.6 Overall Conclusion

The thesis aimed to address the following research question: How do personal strategies of setting boundaries and organizational support affect employee productivity and work-life balance in remote work environments? A clear, albeit subtle, answer can be given by the quantitative analysis of 90 remote workers across industries. The most important and statistically significant predictor of employee productivity and work-life balance is organizational support, with large regression coefficients ($\beta = .627$ and $\beta = .498$ respectively) and incremental predictive (explaining outcome variance) values of about 29 and 30 percent over demographic controls. There is a significant bivariate relationship between personal boundary-setting strategies and work-life balance ($r = .445$) as predicted by the Boundary Theory, but this relationship disappears when the shared variance with organizational support is adjusted, indicating that the two processes are more closely related than is commonly believed. Boundary-setting was not significantly related to employee productivity.

The results have a strong implication on theory and practice: personal-level coping mechanisms like personal boundary management cannot be used as a good alternative to institutional resources provision. The workers who are employed in conducive organizational settings always record higher productivity as well as improved balance performance despite their respective boundary practices. On the other hand, organizational support may not be forthcoming and the individual strategies of boundaries, however deliberate and effortful, may not be adequate in ensuring that

resource depletion that COR Theory predicts as a consequence of poor institutional conditions is avoided.

Meanwhile, the revelation that psychological stress recovery was the most contested aspect of the whole study, only less than half of the people surveyed indicated that they were clearly able to bounce back after work stress in personal time, is a bracing wake-up call that the dream of remote work as a means to improved employee health is still, in the minds of most employees, a dream. To realize this promise, organizations will need to change the way they think about the role they play in remote work arrangements: not as technical infrastructure providers to enable employees to work at home, but as creators of resource environments that will enable them to work sustainably, recover successfully, and balance work and personal life with real success.

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Appendices

Appendix A. Survey Questionnaire

Remote Work and Employee Experience Survey

Dear Participant,

Thank you for taking part in this survey. This questionnaire is part of a master's thesis in Strategic Business Development at the University of Vaasa. The study explores how remote work affects employee productivity and work–life balance, and how personal habits and organisational support shape that experience.

Your participation is voluntary and anonymous. No identifying information will be collected. The survey takes approximately **7–8 minutes** to complete.

Section 1: Background Information

1. What is your age group?

- Under 25
- 25-40
- 40-60
- 60 above

2. What is your gender?

- Male
- Female
- Others

3. What is your employment status?

- Full-time employee
- Part-time employee
- Self-employee/freelancer

4. Which industry do you work in?

- IT/ Technology
- Banking/ Finance
- Healthcare
- Education

- Public sector
- Others

5. How long have you been working remotely?

- Less than 1 year
- 1-2 years
- 3-5 years
- More than 5 years

6. What percentage of your work is remote?

- Fully remote
- Mostly remote
- Hybrid
- Mostly office-based

Section 2: Personal Work Boundary Habit (Five-Point Likert Scale)

1. Strongly disagree	2. Disagree	3. Neutral	4. Agree	5. Strongly agree
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7. When working remotely, I tend to maintain regular working hours. (1,2,3,4,5)
8. I will not be checking work messages during my off time. (1,2,3,4,5)
9. I have a clear schedule which helps me to end my working day. (1,2,3,4,5)
10. During personal time, I am able to mentally disengage with work. (1,2,3,4,5)
11. I clearly communicate my availability to colleagues. (1,2,3,4,5)

Section 3: Organizational Support

12. My organization offers the means that I require to work at home. (1,2,3,4,5)
13. My manager effectively talks to me when I am working remotely. (1,2,3,4,5)
14. My work organization is flexible. (1,2,3,4,5)
15. My organization promotes a good work-life balance. (1,2,3,4,5)
16. I believe that I am entrusted with the ability to work on my own. (1,2,3,4,5)

Section 4: Employee Productivity

17. I am able to focus effectively when I am working at home. (1,2,3,4,5)
18. I am able to finish my assignments on time when working at home. (1,2,3,4,5)
19. The quality of my work remains high when working remotely. (1,2,3,4,5)

20. I find it more productive when I work at home. (1,2,3,4,5)

21. Remote working allows me to be efficient in my work. (1,2,3,4,5)

Section 5: Work-life Balance

22. Working remotely, I can maintain the separation of work and personal life.
(1,2,3,4,5)

23. My personal time is usually influenced by work. (1,2,3,4,5)

24. I have sufficient time to do personal activities beyond work. (1,2,3,4,5)

25. I can easily get over work stress when I am not at work. (1,2,3,4,5)

26. Remote work has enhanced my general quality of life. (1,2,3,4,5)

Appendix B. Survey Link

The survey was distributed to participants by the following Google Form link:

https://docs.google.com/forms/d/e/1FAIpQLSdpLiO2B3FmvsJekat7MCyTrj7ks997fySlp19s0s4Pkw_Rxg/viewform?usp=header

[https://owncloud.uwasa.fi/remote.php/webdav/Untitled%20form.csv%20\(2\).zip](https://owncloud.uwasa.fi/remote.php/webdav/Untitled%20form.csv%20(2).zip)

Note: If the form has expired, the questionnaire instrument is provided above in its entirety in Appendix A. The dataset in its original format can be accessed on request from the thesis supervisor.