



**Utrecht University**

**Thesis: “Hybrid Meetings and Employee Well-being Post-COVID-19 Era: A Comparative Analysis of Stress and Engagement between Greece and the Netherlands”**

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## **Preface**

This thesis signifies the ending of an era. The Master of Strategic Human Resources Management has been challenging, but it has also given me the opportunity to grow as an individual, and through the experience of living abroad I was able to meet people who have stood by my side, and I will treasure for the rest of my life. This year has helped me learn more about myself and realize how lucky I have been to be revolved around people who believed in me and my abilities.

Given this chance, I would like to thank my parents for listening to my concerns during this full year. Look, Mum and Dad, your baby girl made it!

I would also like to thank my professor Wouter who guided me during the writing of my thesis and who was always there to give insightful feedback. His academic and research knowledge always kept me on my feet to be able to deliver a good thesis that would be worthy of his support.

To anyone reading this thesis, I would like you to believe in yourself a little bit more and let you know that better days are coming!

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## **Abstract**

After the outbreak of COVID-19, organizations have adopted several hybrid work arrangements like hybrid meetings to combat the restrictions created during the pandemic, to continue with information sharing, managing complex work tasks and collaborating. This thesis aims to explore the impact of hybrid meetings on employee well-being in the post-pandemic era, comparing Greece and the Netherlands. To investigate the above relationship, a cross-sectional analysis was executed. The data were collected with the use of questionnaires that were digitally distributed to 177 participants, 77 from Greece and 100 from the Netherlands. This thesis statistically evaluated the data by using linear regression with a moderator. The contribution to the scientific scene was by reaching to the conclusion that BNS has a mediating effect on hybrid meetings, however hybrid meetings have no direct effect on stress and engagement of employees, both in Greece and the Netherlands. The moderating role of digitalization was not as significant as expected, as it did not influence to a certain degree the relation of hybrid meetings with employee well-being, however the finding portrayed a strong direct relation of digitalization to stress and engagement. The findings of this research aid in creating a positive work environment for all organizations in Europe that nurtures employees' holistic well-being.

**Keywords:** *Hybrid Meetings, Basic Need Satisfaction, Employee Well-being, Digitalization, Greece, Netherlands, Post COVID-19, Human Resources Management*

## 1. Introduction

After the COVID-19 pandemic, companies worldwide have redefined their understanding of work settings (Narayan et al., 2021; Qin et al., 2022), and now many employees need to carry out their work responsibilities in a non-traditional model (Alfes et al., 2022). After the pandemic hybrid working is commonly utilized, in which employees harness ICTs (Information and Communication Technology) to split their work time between returning to their offices and working remotely (Hopkins & Bardoel, 2023). Bloom et al. (2023) state that over 30% of full-paid days in early 2023 are spent working from home, with hybrid working being the most popular strategy followed by organizations. Once a person or team in an organization adopts a hybrid work schedule, hybrid meetings become crucial for executing tasks (Reed & Allen, 2022). Neumayr et al. (2021) describe them as time-limited and synchronous communication sessions between co-located and remote participants.

Nevertheless, easing into this new work arrangement of hybrid meetings is not the same in all EU (European Union) countries. To comprehend the difference between the level of adaptation to the hybrid working arrangements, in Greece, in 2021 the average level of hybrid work was 48% and in 2023 it has decreased to 21%, with the latter being the new norm for most Greek companies (Kathimerini, 2023). In the Netherlands in 2022, the average Dutch employee is working 6.5 hours per week from home and 4 in 10 workers sometimes work from home every week, which is more than before the pandemic (KIM, 2022). Observing these distinctive levels of adaptation to hybrid work and thus to hybrid meetings, it raised the question of how this gap will affect employees' well-being, having to modify their current working habits.

With hybrid meetings becoming prevalent in modern hybrid workplaces, it has become harder to maintain the well-being of employees (Marsh et al., 2022; Mohammed, 2022; Haitham & Khalid, 2022). Employee well-being revolves around the overall employee's perception of how they experience and function at work (Warr, 1987). Even though well-being is a multidimensional concept, most agree that employee well-being can have both an uplifted and a negative dimension. In the context of this thesis, two dimensions are examined, work engagement as the positive side which is linked to their work tasks, and roles (Barret-Cheetham et al., 2016) and stress as the negative side, due to hybrid meetings disrupting usual work-related activities (Johnson & Mabry, 2022).

There has been a rise in stress employees experience when interacting with digital systems such as hybrid meetings (Chesley, 2014; Monilo et al., 2020). As more people are now

attending more frequently hybrid meetings, participants feel stressed having to cope with the technological tools harnessed during the meetings, making them feel more stressed than before (Sardeshmukh et al., 2012; Richter, 2020; González-López et al., 2021). People experience stress when they perceive a situation as threatening to their personal resources, negatively affecting their well-being (Lazarus & Folkman, 1984).

Research conducted a year after the outbreak of the pandemic exhibited that over 90% of employees are stressed in their work, with 2020 being the most stressful year (Laker, 2021). Employees had to rearrange the way they have been accustomed to working and collaborating up until now (Alfes et al., 2023), and such disruptions in everyday work activities can cause stressful situations for those who had to incorporate and attend hybrid meetings at work (Johnson & Mabry, 2022). As they had to learn from the start how to work and perform as efficiently as before with the pre-existing resources, it added to the work demands that employees experience, negatively impacting their stress levels (Borst & Knies, 2023).

In contrast to stress, work engagement is a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption when certain psychological conditions are met (Allen & Rogelberg, 2013). Previous research has shown that employees are more engaged and aligned with organizational values (Mulang, 2022) when their BNS (Basic Need Satisfaction) is satisfied (Breugh, 2021). If employees have autonomy at their work, feel competent, and relate with others (Van den Broeck et al., 2011; Nielsen et al., 2018), then these dimensions operate as extra job resources (Mohammed, 2022), making people more engaged in work. Consequently, it is believed that organizations have a crucial role in establishing a practically and emotionally supportive workplace environment to help individuals feel valued and cared for, enhancing their engagement levels and sustaining a sense of well-being (Mihalance & Mihalance, 2022; Knight et al., 2022a).

Organizations can contribute to employee well-being in hybrid meetings by harnessing digitalization. The level of digitalization in organizations influences employee well-being (Elmassah & Hassanein, 2022) by shaping the hybrid workplace experience (Anderson & Patton, 2022). It can serve both as a job resource and a demand (Bakker & Demerouti, 2017; Bordi et al., 2018), with the potential to either enhance employee engagement or if used inefficiently lead to stress (Mäkikangas et al., 2022; Smite et al., 2023).

Nevertheless, the level of digitalization is not the same for every organization, as it depends on the organizational level of adaptability and adherence to technological advancements (Tabor-Blazewicz, 2022), making it also dependent on which country each

organization is operating in. Technologically advanced countries like the Netherlands, have access to resources to commit to a big financial investment in research and innovation that is needed to create cyber-physical systems that are smart, safe, and secure (Pollizter, 2018).

Technologically underdeveloped countries like Greece are still trying to acquaint themselves and make progress in promoting digital skills development and entrepreneurship (DESI, 2022c), or they have not been actively using these methods of business communication until now (DESI, 2022a). Based on the results from the paper of Brodny & Tutak (2021), independently of the enterprises' size, Greece exhibited low levels of digitalization, whereas the Netherlands was one of the six most digitalized countries in the European Union, surpassing the average values. These technological disparities between countries and thus organizations have altered the dynamics between hybrid meetings and employee well-being (Olson & Olson, 2003; Cijan et al., 2019).

Consequently, the interest of this thesis to investigate how and why hybrid meetings affect employees' well-being, in terms of the stress and engagement levels they experience while attending them; and how the level of digitalization in organizations in Greece and the Netherlands, can amplify or abbreviate stress and engagement in hybrid meetings respectively.

### **1.1 Scientific Relevance**

A lot of research has been conducted to understand the impact of hybrid work on employee well-being (ILO, 2021a; Knight et al., 2022a; Mäkikangas et al., 2022). Furthermore, studies have linked stress to physiological stress reactions, exhaustion, and hindered job satisfaction when it derives from technological usage (Monilo et al., 2020; Hagemann & Klug, 2022). In addition, researchers have also found a correlation between stress and work engagement with BNS theory (Mroz et al., 2018; Porpiglia et al., 2020; Breaugh, 2021; Haitham & Khalid, 2022). If employees are autonomous, efficient, and relate well with others at work (Deci & Ryan, 2008; Nielsen et al., 2018), then they become more engaged, ultimately achieving psychological well-being (Olafsen et al., 2021).

However, there has been no systematic investigation exploring the outcomes of hybrid meetings on the stress and engagement levels of employees. This study will try to understand how the frequency and quality of hybrid meetings can decrease or increase stress and engagement levels respectively (Allen et al., 2022), by satisfying their BNS. Therefore, it can serve as a foundation and stimulate further research into the evolving nature of work and its consequences. It will be also testing the moderating effect of the level of digitalization in organizations and how these diverse levels in Greece and the Netherlands can influence

employee well-being for those who participate in hybrid meetings. The rapid expansion and accelerating development of information and communication technologies (ICTs) create both opportunities and risks for employees' mental health (Chai & Park, 2022; Palumbo et al., 2022; Hagemann & Klug, 2022).

Given the current digital intensification, stress connected to the level of technological advancement is gaining importance in the workplace (González-López et al., 2021). If organizations do not integrate the right technological tools for easier execution of hybrid meetings, employees will be more stressed when they attend them. However, if organizations implement innovative ICTs that simplify the process employees will be more engaged and will have a more active role during hybrid meetings (Buyukguzel & Mitchell, 2023). It is therefore interesting to examine how prominent levels of digitalization in organizations during hybrid meetings can moderate stress levels of employees and encourage work engagement, or how low levels of it can have the opposite outcomes, and how organizations can tackle the risks associated with the introduction of digital technologies for the well-being of their employees (Bordi et al., 2018; Hagemann et al., 2021; Zeuge et al., 2022).

## **1.2 Societal Relevance**

As virtual meetings are likely to become a permanent feature in labor markets, this thesis aims to support participants in hybrid meetings and improve their well-being (Saatçi et al., 2019; Allen et al., 2022). It will explore how the level of digitalization in hybrid meetings can positively or negatively influence employees' overall well-being, including definitions, challenges, distinctive characteristics, and outcomes.

The demands of hybrid meetings have caused stress and negatively affected employees' psychological well-being, raising concerns for the mental health of participants, including depression and substance abuse, which organizations must address (Chai & Park, 2022). This thesis will try to identify what challenges occur during hybrid meetings that make employees feel pressured and stressed by technological usage. Finding ways to prevent the pitfalls of hybrid meetings that cause stress to the staff and enhance the positive aspects that foster their engagement (Neumayr et al., 2021) can lead to better employee well-being (Wu et al., 2022; Standaert, Thunus & Schoenaers, 2022). That way hybrid meetings can be efficient, productive, and inclusive enhancing employee engagement, satisfaction, and retention (Ellis et al., 2022).

Furthermore, by focusing on the drastically different economies of Greece and the Netherlands (IMD, 2022), the findings can be readily interpreted and implemented in other countries that are adopting pioneering hybrid work arrangements, including hybrid meetings,



which have an impact on individuals' well-being (Lyngstadaas & Berg, 2022). By improving employees' well-being, organizations can create an effective workplace and promote essential organizational elements such as increasing work performance and reducing turnover intention (Qin et al., 2022). Therefore, by examining the relationship between hybrid meetings and stress and work engagement among employees in Greece and the Netherlands, and how the varying levels of digitalization in organizations affect this relationship, this thesis can provide useful insights to alleviate the negative effects of technology on employees in the digital workplace and enhance digital well-being and productivity (Marsh et al., 2022).

### **1.3 Context of Study**

The level of digitalization in organizations is affected and measured by many factors, from the economic status of the country (Brodny & Tutak, 2021), the existing regulatory national policies (Attaran et al., 2019), the necessary set of skills employees need (Bezrukova et al., 2022) to accommodate new work arrangements like hybrid meetings (Jandric & Randelović, 2018), as well as the industry that a company operates in (Paunov & Planes-Satorra, 2019). All these contribute to amplifying the differences in the speed and quality of access to technological infrastructures (Billon et al., 2020) and therefore, Greece and the Netherlands exhibit diverse levels of digitalization within organizations.

On the one hand, according to the European Commission's report (2019), Greece ranked poorly in terms of its overall digital readiness compared to other European countries. Internet connectivity, the use of digital services in the public sector, the adoption and incorporation of digital technologies within businesses, and the country's insufficient digital skills base were essential and practical needs that were unconsidered (Cedefop, 2018). Even though it has noted noteworthy progress toward digitalization in an exceedingly small period, it is in 25th place out of the 27 member-states in the Digital Economy and Society Index of 2022, whereas the Netherlands holds 3rd place (DESI, 2022a).

Hence, its digital development delay has affected the implementation of hybrid meetings, affecting the well-being of Greek employees. Using an example from Greece, it had one of the lowest levels of digital skills in Europe in 2016, with only 63% of the population being regular internet users. Moreover, Greece has the lowest share of ICT specialists in the workforce among all EU countries, at only 1.3% in 2014 (Katsikas & Gritzalis, 2017). Most workers had to adapt to the new work style rapidly, but in most cases with inadequate support and resources from organizations, which increased the risk of stress for those attending them (Sinclair et al., 2020; Pouliakas, 2020; Galanti et al., 2021).

On the other hand, the Netherlands is the fifth-largest economy among the member-states of the European Union (EU) and will play a critical role in the digital transformation of the EU. Since 2018, the country has adopted the Dutch Digital Strategy (DDS) to further engage in managing the digital transition. Despite the pandemic and the governmental restrictions, the program has been able to transform the labor market, changing communication and societal processes in job premises (DESI, 2022b). Moreover, the Netherlands came sixth in the World Digital Competitiveness Ranking, which measures the ability of a country to adapt to digital technologies as a key driver for economic transformation in business, whereas Greece was in the 50th position (IMD, 2022).

Even though the Netherlands have better technological infrastructures than Greece, there is still a need for Dutch companies to revive their business models to fit into the newly structured work environment, in which meetings and conferences can take place online (Nederland Digitaal, 2021). In addition, a study conducted in March 2020 in the Netherlands showed that remote work negatively influences work engagement (Syrek et al., 2022). Despite the technological advancement of the Dutch work environments, employees tend to be unsatisfied with attending multiple meetings in a day, perceiving them as a waste of time and energy (Karl et al., 2022).

Taking everything into consideration, this study aims to investigate the factors that contribute to increasing or decreasing stress and work engagement levels experienced by employees during hybrid meetings from a habitual perspective. Consequently, the findings included in this thesis are derived from two countries with different economic and technological infrastructures, aiming to provide a more generic and representative sample (Young, 2015) that can be easily adapted to more industry-specific settings throughout Europe. That way various sectors of the market will be able to utilize hybrid meetings for the coordination and management of work in their everyday work activities to achieve higher productivity levels (Buyukguzel & Mitchell, 2023).

#### **1.4 Research Question**

Taking everything into account, this thesis tries to provide an answer to the main question:

*How does basic need satisfaction influence the relationship between hybrid meetings and stress and work engagement among employees in Greece and the Netherlands, and how does the level of digitalization in organizations affect this relationship?*

To answer this question, a theoretical framework is going to be developed explaining how BNS relates to stress and engagement levels of employees that participate

in hybrid meetings and how the differentiating levels of digitalization in organizations in Greece and the Netherlands are affecting that relationship. Then, the methodology for the research is presented along with the findings of the regression analysis. Those are followed by the discussion of the findings with the conclusions based on the findings and the theoretical background. Lastly, limitations and contributions of the study for future research are also presented.

## **2. Theoretical Framework**

In this thesis chapter, a comprehensive theoretical background is built to enhance the significance of the research's findings. The main goal of this thesis is to examine why employees feel more stressed when participating in hybrid meetings. To identify the causes of stress in those settings, a conceptualization of employee well-being takes place, and its two dimensions, stress, and engagement are explained. Furthermore, the study leverages the JD-R model to describe the effect of job demands and job resources in hybrid meetings and its implications on employee well-being. This chapter also tries to present the linkage of hybrid meetings with stress and engagement, through basic need satisfaction as a job resource that promotes employee well-being, having a mediating effect on the above relationship. Lastly, this thesis explains how the diverse levels of digitalization in organizations occur and how these technological advancements impact the relationship of hybrid meetings and employee well-being, exhibiting a moderating effect between hybrid meetings and the two dimensions of employee well-being.

### **2.1 Well-Being: Stress and Work Engagement and the role of BNS**

The term well-being refers to a broad idea that encompasses an individual's appraisal of their existence, including how they function at work (Warr, 1987; Lyngstadaas & Berg, 2022). Bartels et al. (2019) define well-being as optimal experience and functioning, which includes feeling good and experiencing fulfillment while having a purpose. This definition draws from two perspectives: hedonic and eudaimonic well-being, both of which are important facets of an individual's well-being. Ryan & Deci (2001) describe hedonic well-being as the attainment of pleasure and the avoidance of pain, which is a broad conception of hedonism that includes preferences and pleasures for both the mind and body. Eudaimonic well-being emphasizes the pursuit of meaning, authenticity, and self-realization, occurring when people's life activities are in harmony with deeply held values (Barret-Cheetham et al., 2016).

Guest (2017, p. 26) defines work well-being as *"the overall quality of an employee's experience and functioning at work"*. Well-being at work necessitates the pleasant feelings employees obtain and perceive when giving meaning to work-related activities (Qin et al., 2022). However, merely fulfilling someone's requirements at work does not always translate into well-being because it is a multidimensional construct influenced by positive or negative aspects, mental exhaustion, life domain satisfaction, and subjective behavioral effects (Guest, 2017; Qin et al., 2022).

On the one hand, one of the dimensions of well-being discussed about hybrid meetings is stress, which has usually been regarded as a generic term with several definitions. To narrow its scope, the focus will be on the stimulus of stress and how environmental factors influence the stress levels perceived by employees. Lazarus & Folkman (1984, p. 19) have thoroughly examined the concept of stress and they have described psychological stress as *“a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being”*.

Breaugh, (2021 p. 87) defines stress *“as the aversive or negative feelings that employees have toward their work as a result of job strain. Cumulative stress comes from the continued accumulation of stressful situations and the residual effects that stem from the work environment”*. Zeuge et al. (2022 p.2) perceive stress as:

*“a durable process involving individuals who deal with their environment. This is characterized by constant appraisal and reappraisal in response to stressors. Stressors are direct or indirect demands created by an individual’s internal or external environment, which upsets the balance and affects well-being”*.

All definitions claim that a stressful situation can occur when a disruptive life event takes place and disrupts usual activities and the shift to hybrid meetings can be viewed as a disruptive life event for employees who had to adapt to this hybrid work arrangement (Johnson & Mabry, 2022). However, people do not respond the same way to stressful situations, as stress is an inevitable aspect of life that individuals experience differently, based on their subsequent emotional and physiological responses to a cognitive appraisal of a situation as threatening (Lazarus & Folkman, 1984).

Karasek (1979), defines stressors as job situations of high time pressure, high working pace and high work complexity that put extra job demands on someone. In such situations, stress can decrease employee well-being (Borst & Blom, 2022), as it negatively affects the way people experience their work. Job content, not participating in decision-making, unsupportive work environment, job insecurity, and organizational structure are some of the job characteristics that can be perceived as stressors at work (Baker, 1985).

On the other hand, the other dimension of well-being work engagement, as described by Schaufeli & Bakker (2004a, p. 297) is *“a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption”*. Engagement is characterized by vigor, dedication, and absorption (Schaufeli et al., 2002). Vigor is the levels of energy employees portray during work and their attitude in

coping with challenges at work. Dedication is their involvement in job related tasks and the sense of wanting to perform their best and being inspired by reaching their goals. Absorption is being deeply dedicated to their tasks and time passes by quickly. Kahn (1990, p. 700) also examined engagement as *“the simultaneous employment and expression of a person’s preferred self in task behaviors that promote connections to work and to others, personal presence (physical, cognitive and emotional) and active, full role performances”*.

Closely related to work well-being is the Self-Determination Theory (SDT) (Deci & Ryan, 2008) in which, once people have addressed their basic psychological needs at work, they have natural impulses striving towards vigor and effective functioning (Fotiadis et al., 2019). Basic needs are essential components for ongoing personal growth and well-being. BNS theory identifies three psychological requirements: autonomy (the feeling of having control over work activities), competence (the desire to be efficient), and the need for relatedness (to relate to other people) (Deci & Ryan, 2008; Olafsen et al., 2021), all of which are positively impacted by work environments that support the satisfaction of each of these needs (Blechman et al., 2022).

When employees have a sense of autonomy in their work, they integrate personal traits into the completion of the job tasks, giving them a sense of accomplishment. Furthermore, if an organization aids in fulfilling the need for competence, employees will feel that their work and contribution is important for work, making them try systematically harder to follow through on their job. By having their need for relatedness satisfied, staff enjoy being part of the team, creating a closer relationship with colleagues (Van den Broeck et al., 2008). For this thesis, employee well-being is conceptualized in terms of stress (Ritcher, 2020; Mohammed, 2022; Wontorczyk & Rożnowski, 2022) and work engagement (Sardeshmukh et al., 2012; Allen et al., 2013; Giaouque et al., 2022), which has been related by previous research to BNS (Rahmadani et al., 2019).

If the three conditions of BNS are adequately obtained through one’s job employees are more prone to be engaged and absorbed in their work, directing their energy toward work in line with strategic and organizational values (Rahmadani et al., 2019; Mulang, 2022). Autonomy is a significant factor that contributes to increasing employees’ engagement and overall well-being (Richter, 2020). Usually, employees with greater autonomy are more likely to be engaged in their jobs, as the feelings of empowerment and commitment associated with autonomy tend to promote work engagement (Wang et al., 2021).

If the need for competence is satisfied, employees will perceive their contribution to work as important, making them more eager and willing to work and will challenge themselves to further grow and develop with the organization. Another aspect that can positively impact employees' engagement is the organizational environment; thus, a favorable and supportive workplace can satisfy employees' need for relatedness (Qin et al., 2022), which is expected to improve work engagement (Van den Broeck et al., 2011). The perceptions that personnel have of the organization's behavior toward them affect how they behave and react to it. Hence, managers and supervisors, in general, are believed to play a crucial role in hybrid meetings by managing different process factors such as turn-taking, decision-making format, and the level of attendee involvement (Allen & Rogelberg, 2013; Roos et al., 2020). They also provide practical and emotional support that can help individuals feel valued and cared for by the organization, sustaining a sense of well-being (Knight et al., 2022a).

Work well-being is a multifaceted construct influencing employee experience and functioning within organizations. The BNS theory highlights the significance of psychological needs of autonomy, competence, and relatedness, to foster work engagement and compress stress, enhancing overall employee well-being (Deci & Ryan, 2008; Olafsen et al., 2021). To navigate this evolving landscape successfully, a holistic approach that accounts for both stress mitigation and the cultivation of work engagement is crucial. The level of engagement and stress of workers derive from the job demands and resources available (Bakker & Demerouti, 2017; Giauque et al., 2022). The next chapter discusses how hybrid meetings can provide more job resources and minimize the effect of job demands, enabling organizations to promote work engagement and contribute to overall well-being.

## **2.2 The JD-R model: Hybrid meetings as a job demand or a job resource**

Reed & Allen (2022 p. 8) define a hybrid meeting as *“a meeting where some people are in the same room, and some are linked in remotely. The result is that some people are face-to-face while others are connected via telephone, video conference, or both.”* Similarly, Buyukguzel & Mitchell (2023 p.2) describe hybrid meetings as *“video-mediated interactions combining virtual and physical experiences with both in-person and remote attendance”*. With the rise of hybrid working, globalized businesses require meetings to transcend the physical meeting room, hybrid meetings have become commonplace in multi-site workplaces, and their outcomes have significant economic and societal implications (Saatçi et al., 2019). A key factor in conducting hybrid meetings is the use of video and audio-based technologies, which are

facilitated through online conferencing software platforms (Roos, 2020; Marks, 2020; Oeppen et al., 2020).

The job demands and resources model (JD-R) was first introduced by Demerouti et al. (2001) to define the aspects of a job that affect employees' well-being. This theoretical viewpoint is divided into job demands and job resources and helps identify how a range of factors affect employee engagement and stress levels at work. It assumes that various job characteristics, including job demands and job resources, can result in specific employee outcomes such as stress, work engagement, and perceived performance in different professional contexts (Bakker & Demerouti, 2017).

On the one hand, job demands are the tasks that need to be completed. As Schaufeli & Bakker (2004a, p. 296) have stated, job demands "*are the physical, psychological, social, emotional, cognitive, and organizational components of a job that require continued physical or psychological effort*". Hence, physiological, or psychological costs are associated with job demands, such as high work pressure, an adverse work environment, and emotionally demanding interactions (Bakker & Demerouti, 2017). While not all job demands are negative, they can become job stressors when the effort required to meet them is significant, negatively impacting well-being (Karasek, 1979; Giauque et al., 2022).

On the other hand, Hobfoll (2002) explains job resources as the physical, psychological, social, or organizational aspects of a job that can decrease the impact of job demands and the associated physiological and psychological costs, aiding in achieving work goals or stimulating personal development. They are the aspects that allow individuals to achieve work aims and engage in personal learning and development. The resources that encourage a healthy work environment include job autonomy and support from the work environment (Bakker & Demerouti, 2017).

Job demands have a negative impact on job attributes that contribute to high employee engagement, while job resources have a positive impact. A demanding work environment might place added strain on people, and job resources may neutralize this effect (Breugh, 2021). The JD-R model is also related to the conservation of resources (COR) theory; one of the main principles in COR theory defines that resource loss is more important than resource gain, as people must invest their resources to defend against loss, recover from losses, and gain resources (Hopkins & Bardoel, 2023). Furthermore, the motivational component of this concept implies that individuals would make efforts to avoid resource losses, as it can have a significant negative effect on their well-being (Halbesleben et al., 2014). However, it can also



have the opposite outcome, with employees becoming more motivated if their tasks demand additional resources because they will value their existing ones more. As a result, the demands may be perceived as a challenge rather than an impediment (Giauque & Weissbrodt, 2021).

If employees perceive high job demands and receive poor or insufficient job resources, they will react by developing more negative work attitudes, such as less work engagement and more stress (Giauque & Weissbrodt, 2021). When hybrid meetings are used inefficiently, they can become job demands that require extra effort from employees, creating pressure and disturbing workflow. Of course, people are affected differently by stressors at work based on their pre-existing job resources, such as individual psychological traits and level of extraversion (Borst et al., 2019; González-López et al., 2021). Therefore, not everyone is influenced to the same degree by stressors at work.

After COVID-19 some employees started participating more frequently in virtual meetings and they were not able to cope with the demands placed upon them (Sardeshmukh et al., 2012; Richter, 2020). When the perceived demands are too great to be met by normal working effort, depleting their energy resources, employees often employ coping mechanisms to keep up with their workload, which involves lowering performance targets, such as accuracy and speed, to keep their stress levels normal (Schaufeli & Bakker, 2004a; Monica et al., 2020). It is therefore natural for people who frequently attend meetings to need some time in between before transitioning to the next meeting, as they put a significant strain on their resources (Bakker & Demerouti, 2017; Mroz et al., 2018; Allen et al., 2022).

Moreover, individuals who occasionally attend hybrid meetings virtually seem to long for human connection, as the job resource of communication is scarce. When employees join multiple meetings online, they spend time alone away from their offices and isolated from the rest of the team (Bartel et al., 2011; Giauque et al., 2022). By limiting different resources such as communication and interaction with others, individuals do not get the chance to recharge to handle more demanding work tasks (Schaufeli & Bakker, 2004a). Individuals who lose resources at work are more prone to feeling various forms of pressure, strain, and stress (González-López et al., 2021).

In addition, the BNS theory correlates with job demands/resources and negative/positive outcomes, respectively (Van den Broeck et al., 2010; Giauque & Weissbrodt, 2021). Based on the JD-R model, supportive social circumstances can improve the level of satisfaction with basic psychological needs resulting in optimal well-being (Deci & Ryan, 2008), whereas coercive social situations restrict the fulfillment of the dimensions of BNS,

causing higher levels of stress (Bakker & Demerouti, 2017; Fotiadis et al., 2019). The three dimensions of BNS describe a general sense and experience of meaning (Nielsen et al., 2018) and are closely related to job characteristics, meaning job resources and demands (Olafsen et al., 2021). Therefore, they can be distinguished as job resources allowing people get absorbed to their work tasks (Van den Broeck et al., 2011) and balancing out the job demands employee are confronted with when joining hybrid meetings (Breugh, 2021).

In conclusion, meetings in general play a crucial role in the functioning of organizations, and with the rise of hybrid working, hybrid meetings have become commonplace in multi-site workplaces. However, when hybrid meetings are used inefficiently and frequently, they can become additional job demands, placing extra pressure on employees and disrupting workflow (Richter, 2020; Giaouque & Weissbrodt, 2021; González-López et al., 2021). Therefore, considering the demands and resources associated with hybrid meetings is essential to support employee well-being and optimize their engagement in the workplace. The following chapter encompasses how hybrid meetings can influence the stress and engagement levels of employees.

### **2.3 Relation Between Hybrid Meetings and Work Engagement/Stress**

With the emergence of hybrid work and hybrid meetings during and after COVID-19, organizations have become more sensitive to detecting and addressing employees' well-being (Mohammed, 2022). Primarily, hybrid meetings can improve and promote employee engagement, as the latter relates to the establishment of the three dimensions of BNS as additional job resources (Deci & Ryan, 2008; Bakker & Demerouti, 2017).

The first dimension that contributes to the satisfaction of BNS is autonomy, which is the freedom of choice when conducting job tasks (Van den Broeck et al., 2011; Nielsen et al., 2018). Based on the JD-R model, autonomy is a work-related job resource (Van den Broeck et al., 2010; Borst et al., 2019), as it gives to staff the feeling that they have ownership over their work responsibilities and the distribution of their tasks throughout the workday (Standaert, Thunus & Schoenaers, 2022). Since employees have more control over their work conditions than those in typical work environments who must be physically present in meetings, it is possible to create a pattern that best suits their work preferences (Tremblay & Genin, 2007; Knight et al., 2022a). Therefore, job autonomy is seen to be positively related to work engagement and thus improved well-being (Syrek et al., 2021; Shirmohammadi et al., 2022; Mäkikangas et al., 2022).

Furthermore, hybrid meetings provide employees with location-independent access to information resources and skills, allowing them to remain active and informed on work updates without having to be physically present in the office (White, 2014). This aids in fulfilling the second attribute of the BNS, which is competence and the feeling that employees are an important aspect of the workplace, contributing to overall organizational productivity (Forrier et al., 2015; Breugh, 2021). By utilizing their knowledge, workers feel accomplishment from their duties and, hence, are more engaged in their organizations and can successfully cope with highly demanding situations (Olafsen et al., 2021; Giauque et al., 2022).

Although many people are attending from their preferred workspace, collaborating with colleagues all over the world, benefiting their well-being (ILO, 2021a), hybrid meetings can make it more challenging to engage employees as they are no longer physically present in the conference or meeting room (Olson & Olson, 2003; Chai & Park, 2022). Those who mostly join meetings remotely and away from their workplace start to lose salient reminders that they are part of the organization, negatively impacting their relatedness (Deci & Ryan, 2008; Lehmann-Willenbrock et al., 2016; Nielsen et al., 2018). Being both physically and psychologically absent from the office makes it easier to lose contact and commitment to the work values (Bartel et al., 2011; Giauque et al., 2022; Knight et al., 2022b) that once used to be a driving force for engagement (Van den Broeck et al., 2011; Sardeshmukh et al., 2012). Employees are not able to gain additional resources (Bakker & Demerouti, 2017) due to the prolonged lack of in-person interactions (Van den Broeck et al., 2011), making them more prone to feeling stressed (González-López et al., 2021).

Hybrid meetings can have an indirect negative relation to the stress levels that participants may experience (Lehmann-Willenbrock et al., 2016; Constantinides & Quercia, 2022). The growth of hybrid meetings brought to the surface the concept of constant connectivity. Many employees who join them online are not able to distinguish between work and personal responsibilities, which ultimately increases their stress as it does not allow them to take a substantial break from their work tasks (Barber & Santuzzi, 2015; Charalampous et al., 2019; Narayan et al., 2021). These can be interpreted as additional job demands for employees who join hybrid meetings, adding to their stress levels and negatively affecting their overall well-being (Alfes et al., 2023; Borst & Knies, 2023).

Many participants complain of “*Zoom fatigue*”, which is the feeling of being mentally and physically tired by video conferencing (Karl et al., 2022; Hagemann & Klug, 2022). This is mostly due to looking for prolonged periods on screens and information processing overload,

which hinders the resources of participants (Hopkins & Bardoel, 2023). Moreover, the ergonomics of home furniture are usually not optimal for prolonged attendance from home, with employees working mostly seated in one position over extended periods without moving, which can harm their physical health (O'Driscoll et al., 2010; Chai & Park, 2022). All these can lead to psychological overload due to increased fatigue, irritability, and the inability to switch off from work and rest properly (ILO, 2020). Consequently, overwork can result in a higher level of stress because the resources to cope with the work at hand are not sufficient (Park, 2007; Zeuge et al., 2022).

There are various instances in which hybrid meetings can put pressure on the employees' personal resources and augment their stress levels. Due to resource constraints some may connect through their computers, while others may use tablets, or they may be limited to audio conferencing through their mobile phones (Eurofound & ILO, 2017; Standaert, Muylle & Basu, 2022). In this scenario, transmitting and maintaining contextual knowledge across sites, overcoming disparities in access to information and communication technology, and interpreting silence during discussions with distant coworkers are issues that those who participate virtually usually face (Kniffin et al., 2021; Goodbrand & Sundström, 2022). All these can act as job demands for participants of hybrid meetings as they must be aware of more things, (Schaufeli & Bakker, 2004a; Monica et al., 2020) resulting in them being more stressed (Karasek, 1979; Borst & Blom, 2022) over attending hybrid meetings.

By satisfying the basic needs of employees, organizations can achieve better employee well-being. It is important to address the challenges associated with hybrid meetings, such as the potential for increased stress levels and "Zoom fatigue" (Hagemann & Klug, 2022). To maximize the benefits and minimize the drawbacks of hybrid meetings, organizations should prioritize promoting the advantages of hybrid meetings while addressing the associated challenges to foster a highly engaged and productive workforce. A team-building-focused organizational environment will positively influence the employees' overall well-being (Mihalance & Mihalance, 2022).

All the above lead to the formulation of two hypotheses which suggest that the relationship between hybrid meetings and employees' stress and engagement levels is mediated by basic need satisfaction.

***H1a: Hybrid meetings positively relate to stress.***

***H1b: Hybrid meetings negatively relate to engagement.***

*H2a: Basic need satisfaction will mediate the relationship between hybrid meetings and stress.*

*H2b: Basic need satisfaction will mediate the relationship between hybrid meetings and engagement.*

## **2.4 Level of Digitalization in Organizations**

As described by Cijan et al. (2019, p. 4) digitalization is “*the phenomenon of adopting digital technologies in business and society*”. The term digitalization in the workplace as Peiffer et al. (2020, p. 158) have described is “*both the process of digitizing work processes or work products and the consequences resulting from the introduction or integration of new technologies into existing work processes*”. Moreover, Palumbo et al. (2022, p. 3) imply workplace digitalization as “*a technology-enabled reconfiguration of organizational activities, which relies on ICTs to reframe behaviors and interpersonal exchanges at work*”. Digital development has gradually become part of European organizations over the last few decades.

However, since COVID-19 information, and communications technology (ICT) infrastructures have significantly increased in accessibility and utilization by businesses, causing fundamental changes in the workplace (ITU, 2020; Georgescu et al., 2023). Individuals and companies have acknowledged the importance of computer-mediated communication systems and initiated an accelerated process of digital transformation to keep up with the general motion toward digitalization (Pinzaru & Stoica, 2022).

Advanced technologies have made it easier for organizations to host hybrid meetings by using platforms that allow virtual communication and collaboration, including video conferencing software and project management tools, making them more efficient, flexible, and accessible (Marks, 2020; Oeppen et al., 2020; Porpiglia et al., 2020). This rapid technological and structural transformation has affected a broad range of stakeholders through various economic activities in Europe (Elmassah & Hassanein, 2022). Certain companies have experienced growth in harnessing digital platforms, while others are still trying to get accustomed to implementing them as everyday work tools. They are still facing obstacles, primarily due to inadequate digital infrastructure, financial infrastructure, human resources, and institutional capabilities (ILO, 2021c).

Economically developed countries have already invested vast fixed expenses for data collection and processing, leading to the development of incredibly rich datasets. They are in

an advantageous position by creating viable applications and securing dominant market positions based on network effects, economies of scale, and information asymmetries in the data-driven economy (Ciuriak & Ptashkina, 2019). However, few European countries can do so at their discretion, given their limited means (Brodny & Tutak, 2021). Economically developing nations are left behind, still trying to invest in basic technological infrastructure, creating a digital divide between them (Billon et al., 2020).

Secondly, national policies and regulations can either enhance or restrict digital connectivity. Digital development is an essential responsibility of governments and regulators (Justo-Hanani, 2022). By establishing general standards that are compatible with social values and preferences, they can promote the interests of the public and consumers. However, regulations have trouble keeping up with the constant and rapid technological advancement (OECD, 2019). Digitalization can pose serious challenges to the conventional ways that governments regulate by obscuring market definitions, putting enforcement procedures to the test, and defying national and international administrative borders.

Thirdly, due to digitalization, organizations need to adapt and embrace rapid technological transformation (Mosteanu, 2020). Restructuring organizational designs utilizing real financial technology necessitates new educational specializations, as well as the development of new competencies to meet the demands of various new work requirements. There is also a direct relationship between the level of digitalization in an organization and the digital skills of its workforce (ILO, 2021b; Bezrukova et al., 2022; Tabor-Blazewicz, 2022). Digitalization emphasizes new sets of skills for the workforce, requiring individuals to adapt to digital work arrangements (Jandric & Randelović, 2018; Peiffer et al., 2020; Neumayr et al., 2021). Inadequate IT skills may prevent businesses from enhancing and broadening their operations (Pollitzer, 2018).

The rapid development of data transmission and processing technologies is the main force behind digitalization and creates extremely favorable conditions for the development of a digital economy when combined with the development of technical tools, which can bring economic and business benefits (Brodny & Tutak, 2021). Because Greece and the Netherlands exhibit distinct distributions of their various available resources toward technological advancement, it has led to diverse levels of digitalization (Billon et al., 2010; Bezrukova et al., 2022). The next chapter explains how the level of digitalization can either moderate or accelerate the stress that employees experience in hybrid meetings and leverage how engaged employees are in hybrid meetings.

## **2.5 Digitalization on the relationship between Hybrid Meetings and Work Engagement/Stress: the case of Greece and the Netherlands**

Digitalization may have beneficial and harmful implications for employees' psychological well-being, as organizational practices impact how digital work is created (Ritcher, 2020; Palumbo et al., 2022). Digitalization has the potential to develop digital workspaces that accommodate various organizational needs, provide new opportunities, and allow for more flexible and hybrid work arrangements (Lyngstadaas & Berg, 2022). On the contrary, several challenges can arise that negatively impact employee well-being (Chai & Park, 2022; Palumbo et al., 2022). Depending on the level of technological advancement in an organization and how well hybrid meetings are structured, Bordi et al. (2018) believe that digitalization can work both as a job resource and a demand (Bakker & Demerouti, 2017; Zeuge et al., 2022), with the potential to either enhance employee engagement or lead to stress (Mäkikangas et al., 2022; Smite et al., 2023).

According to the JD-R model, each profession is distinguished by distinctive work-related stress risk factors. Job tasks that require confronting a variety of technical gadgets or technological challenges cause stress, exhibit an adverse effect on an employee's health, and drain their vitality (Hagemann & Klug, 2022). Job resources, such as a reduction in task time or technical assistance, can boost productivity and engagement at work. The JD-R model also assumes that job demands and resources interact, with resources like technical assistance or participation able to lessen the adverse effects of demands like work overload (Hagemann et al., 2021).

Employees who join meetings remotely are given the chance to discuss with their coworkers about work-related issues, which would not be able to do without the usage of the establishment of digital infrastructures in organizations. As a result, hybrid meetings can lead to better team cohesion and collaboration, satisfying employee socio-emotional need of relatedness, facilitating their personal resources, and thus enhancing their engagement (Yoerger et al., 2015; Allen et al., 2022; Zeuge et al., 2022). They can also relieve physical and cognitive duties for individuals (Hagemann et al., 2021), as they use less of their resources (Bakker & Demerouti, 2017; González-López et al., 2021). These can help them successfully cope with highly demanding situations in hybrid work settings (Peiffer et al., 2020; Olafsen et al., 2021; Giauque et al., 2022).

Nevertheless, hybrid meetings come with many challenges, such as complex, dynamic, synchronous, and tightly interrelated tasks for the participants, which impact their well-being

(Chai & Park, 2022). The incorporation of ICTs is one of the work characteristics affecting attendees' stress levels (Chesley, 2014). When digitalization is not adequately adopted through organizational practices, it demands more effort and puts more pressure on employees, or if it interferes with their productivity, it becomes a stressor for the job. Virtual meetings that are poorly digitally constructed and managed can lead to undesired employee behaviors and may decrease employee perceptions of their teamwork and collaboration, negatively impacting their stress levels and overall well-being (Rogelberg et al., 2014; Giauque & Weissbrodt, 2021; Palumbo et al., 2022).

Additionally, the constant demand for hybrid meetings after the pandemic resulted in technological stress (Ritcher, 2020; Škerlavaj, 2022), negatively impacting employee well-being. Furthermore, many employees were unable to cope with the everlasting adaptation to new technological skills (Pollitzer, 2018; Nielsen et al., 2018; Jandric & Randelović, 2018; Neumayr et al., 2021; ILO, 2021b), making them feel inefficient (O'Driscoll et al., 2010; Hagemann & Klug, 2022). That affects their self-perception of competence, leading to more stress (Forrier et al., 2015; Wontorczyk & Roźnowski, 2022), which hinders their well-being.

Employees in the Netherlands have easily adapted to this virtual means of collaboration thanks to the advances the country has made regarding the adoption of digital technologies (IMD, 2022). However, in countries where the development of ICTs is not a priority, companies have not provided and equipped their teams with the right tools to make cyber-managing more feasible (White, 2014; Reed & Allen, 2022). People working from Greece, have a harder time adjusting to hybrid work arrangements, as most organizations do not have the right foundations for digital incorporation in everyday work activities (European Commission, 2019). In addition, employees in Greece will have to cover a bigger extent of digital illiteracy compared to the Netherlands, putting extra job demands on themselves adapting to digitalization of hybrid meetings (Cedefop, 2018; Wontorczyk & Roźnowski, 2022). Thus, it is expected that Greek employees will exhibit higher levels of stress compared to Dutch employees who join meetings virtually.

Overall, organizations both in Greece and the Netherlands should emphasize creating a more sustainable work environment and ensure that workers have access to digital tools and support they need to be successful and productive when participating in hybrid meetings (Schaufeli & Bakker, 2004a; Kropp, 2021; ILO, 2021). In the case of meetings, this means offering analytics that encourage staff members to reflect on their experience rather than



subjecting them to derogatory performance reviews for ineffective meetings (Constantinides & Quercia, 2022).

These lead to the formulation of the next hypotheses for this thesis, which will help with answering the research question:

**H3a:** *Digitalization will moderate the relationship between hybrid meetings and stress.*

**H3b:** *Digitalization will moderate the relationship between hybrid meetings and engagement.*

**H4a:** *Country will moderate the relationship between hybrid meetings and stress.*

**H4b:** *Country will moderate the relationship between hybrid meetings and engagement.*

## 2.6 Conceptual Model

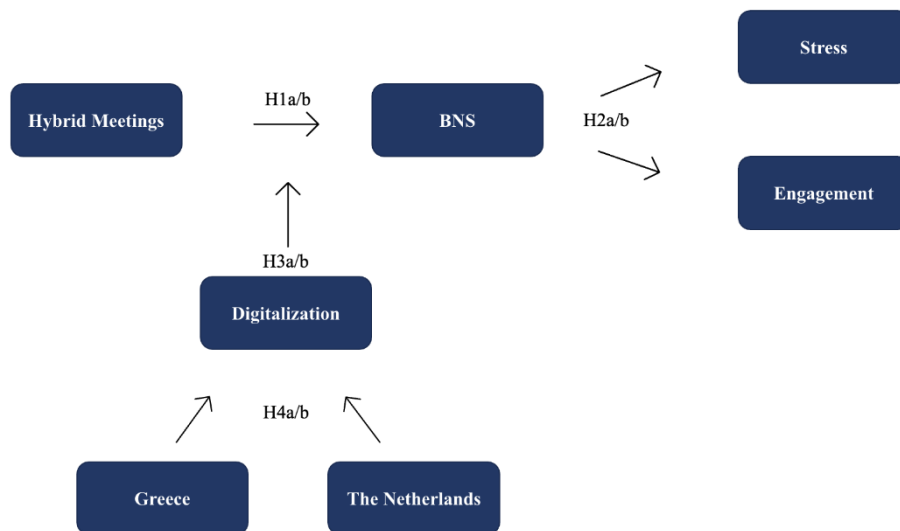


Figure 1. Conceptual Model of “Hybrid Meetings and Employee Well-being Post-COVID-19 Era: A Comparative Analysis of Stress and Engagement between Greece and the Netherlands”

### **3. Methodology**

This chapter of the thesis presents the preparatory phases and processes that took place for the data collection of this research, to answer the main research question and illustrate the decisions that were taken for the analysis. The first part discusses in detail the steps for the development of the questionnaire that was handed out to the participants both from Greece and the Netherlands. The second part of the chapter explains the analysis strategy process that was followed on how the independent variable of hybrid meetings and the dependent variables of stress and work engagement, as well as the mediator of BNS and moderation of digitalization were measured for this research. The independent variable of hybrid meetings is measured based on the frequency of conducting them and the moderator is measuring the level of digitalization in organizations in both countries.

#### **3.1 Data Collection**

To answer the research question of this thesis *“How does basic need satisfaction influence the relationship between hybrid meetings and stress and work engagement among employees in Greece and the Netherlands, and how does the level of digitalization in organizations affect this relationship?”* and test the hypotheses, a quantitative research analysis will be conducted by utilizing surveys. The main research point is to examine how the independent variable (frequency of hybrid meetings) is related to the two dependent variables (stress and work engagement), while also making a contextualized comparison, with the level of digitalization in organizations from the two countries (Greece/Netherlands) acting as a moderator to the above relationship.

The cross-sectional survey was decided as a research design as it measures the associations of multiple outcomes and exposures from a population at a single point in time (Setia, 2016) and aids in extracting conclusions about a population by analyzing a subset of that population (Young, 2015). Thus, by determining the prevalence and examining the associations of multiple exposures and outcomes, the findings from this thesis can be easily implemented in various organizations that use hybrid meetings in everyday work tasks, independently of the country. Furthermore, considering the time and resource restrictions, a survey study was seen as an optimal choice for this study, as it is time-saving and inexpensive.

Convenience sampling was used as participants self-selected to become part of this research, as it is cost and time efficient (Stratton, 2021). The sample framework for this survey research was divided into two, one sample from Greece and one sample from the Netherlands. The participants have administrative job tasks that harness hybrid meetings and utilize

digitalization in their existing working environments. As this study examines the effect of hybrid meetings on employee well-being, the focus is on employees and not organizations. To ensure the validity of the results, the participants are not only part of the operational level of an organization, but that they actively attend meetings, having completed their post-secondary studies, meaning having any kind of education beyond high school, was mandatory.

Furthermore, to be able and examine how digitalization in organizations moderates the relationship between hybrid meetings and employee well-being, the questionnaires were provided to workers that are employed in industries and sectors of the economy that facilitate the use of technological advancements in hybrid work arrangements. In addition, the older age of the participants was 64 years old. The reason this specification has been made was due to the level of familiarization of older generations with the technological advancements harnessed in today's markets. The two samples include the full occupational spectrum that utilized hybrid meetings in their everyday work activities: managers, line workers, service employees, clerical, and white and blue-collar occupations.

For this survey, research questionnaires are used with numerically rated items as a quantitative research strategy (Ponto, 2015). Questionnaires are questions or statements that survey participants respond to, and they were administered in a digital form and were constructed using Qualtrics (Holtom et al., 2022). They were digitally distributed and delivered to the participants through social media and networking platforms such as LinkedIn and Facebook teams, allowing for diversified participants. To collect the data, the questionnaire was uploaded in the span of three months from May to July. The process took longer than expected as the responses from every round were limited. To gather 266 questionnaire responses and achieve a sufficient sample size based on GPower, the questionnaires were distributed twice per week, thus 18 times in total, approaching different groups and teams of social media in every session, to ensure employees from various economic industries would participate.

The advantages of mailed and internet-based self-administered questionnaires are practical, time and cost-effective options for gathering data from large samples maintaining the anonymity of the respondents and having higher response rate than postal questionnaires. (Ponto, 2015). However, the disadvantages of using questionnaires are the inability of the interviewer to help with explaining and giving clarifications or to make follow-up questions going into detail over the discussed topic. Furthermore, there may be bias or under-representation of specific population groups, as not all people have the technological means to

participate in such surveys or they are unfamiliar with how they should proceed to complete the survey, specifically elderly groups (Ball, 2019). Nevertheless, this study aims to examine the effects of hybrid meetings, a relatively new working arrangement that influences mostly younger generations that are part of the workforce, thus this method of collecting data did not exclude potential respondents.

To assure the research's reliability by achieving the highest feasible response rate taking into consideration the time limitations, it was stated that the questionnaire would be anonymous and that their responses would only be used for the purposes of this thesis (Kaya, 2015). The minimal number of participants for the survey was selected based on the statistical power needed to detect whether the hypotheses will be true or not. The program GPower was used to estimate the minimum needed sample for this study to have reliable findings. Power analysis is the process of determining the sample size for a research study. For the purposes of this thesis, under the Test section, the F test was selected and in the Statistical test section the option "Linear multiple regression: Fixed model, R increase deviation from zero." At the Type of power analysis, "A priori..." was chosen and at the input parameters, the effect size was 0.15, err prob was 0.05, power was 0.80, and number of predictors was 5. This showed a total sample size of 106 from the Netherlands and 90 from Greece, so the total sample size came to 196.

### **3.2 Analysis Strategy**

The collected and filtered data were statistically evaluated using linear regression with a mediator and moderator in the statistical program of SPSS to test the hypotheses and understand which of them were proved or diminished based on the results. The goal of regression analysis is to identify the strength and direction of the relationship between the variables and to create a model that can be used to predict the dependent variable's value based on the independent variables' values (Uyanık, & Güler, 2013). This method of testing the relationship between the variables of this study was chosen as it allows us to see what the effects of the independent are on the dependent variables and the predictions that are made are better, as they are based on more than one piece of information (Allison, 1999).

To test the mediating variable of BNS and the relationship it creates with the independent and dependent variables, a mediating analysis was conducted using the Process model by Hayes. A mediator is any variable that works as a mechanism through which one variable affects another one; in this case, basic need satisfaction indirectly affects the two

dimensions of employee well-being stress and engagement in hybrid meetings (Hayes, 2017). The outcomes of the mediating analysis are presented in Tables 10, 11, and 12.

To test the moderating variable of digitalization a moderating analysis was later conducted. A moderator is any variable that affects the association between two or more other variables (Dawson, 2014); in this case, the moderator is digitalization in organizations affecting the relationship between hybrid meetings and stress/engagement. This moderation model is based on the idea that there is moderation when the direction or the strength of the relationship between the independent and the dependent variable is influenced by the moderating variable (Memon et al., 2019). The regression analysis with dummy variables for both the direct effects between hybrid meetings and stress and engagement and the moderation effect of digitalization on the relationship between hybrid meetings with stress and engagement, are in Tables 13 to 16.

### **3.3 Operationalization**

The measures of this questionnaire were extracted and inspired by the Global Survey of Working Arrangements (G-SWA), a survey that collects data on outcomes, plans, and perceptions related to working from home (Aksoy et al., 2021). To measure the independent variable of hybrid meetings, questions were developed to examine the frequency of employees participating in them. The measure of basic need satisfaction was derived from the three competencies autonomy, competence and relatedness which are closely related to well-being (Johnston, & Finney, 2010; Brien et al., 2012). The measure of stress was captured by the Job Content Questionnaire (JCQ) and were decision latitude, psychological demands, social support, and physical demands (Karasek et al., 1998). The notion of work engagement which is defined by vigor, absorption, and dedication was operationalized in the Utrecht Work Engagement Scale (UWES) (Schaufeli & Baker, 2004b). For the moderator, digitalization in organizations, the questions were formulated based on the aspects of digital inclusion, quality of access and use and organizational support for digital adaptation (Sharp, 2022).

To increase the validity of the results by acting as a defense against bias in research, like omitted variable bias, control variables were also included in the survey (Halvorsen et al., 2003). Control variables are essential for enhancing any study's internal validity by minimizing the influence of confounding and other additional variables. This guarantees that there is a correlation or link between the independent (hybrid meetings) and dependent (stress and work engagement) variables. The control variables used were gender, age, educational level, industry and employment status.

Firstly, a factor analysis was performed examining the relationships between the observed items. The suitability of this analysis for the thesis lies in factor analysis's ability to provide a descriptive summary of the ability of the model to reproduce the covariation among indicators when the number of factors is smaller than the number of measured variables (Brown & Moore, 2012). The reliability of the questionnaire was assessed by their internal consistency using the Omega model and the outcomes were found to be satisfactory and the reliability was confirmed for all measures used. The advantage of Omega over Cronbach's alpha is that the reliability is not biased, and the 95% bootstrapped confidence interval gives highly probable values of reliability in the population. For the factor analysis, Promax rotation was used, as it allows for the factors to be correlated (Goodboy & Martin, 2020). The method used to estimate the common factor model was maximum likelihood to measure and explain the correlations and covariances between the observed variables (Watkins, 2018).

Frequency of Hybrid Meetings: To measure how frequently participants join hybrid meetings, a Likert Questions was used, scaled as 1 being Less than once per week, 2 being Once per week, 3 being 2-3 times per week, 4 being 4-5 times per week, and 5 being. Furthermore, the confirmatory factor analysis in Table 1 shows what the independent variable of hybrid meetings in this research is consistent with. The scale is reliable with an Omega of .90.

**Table 1. Frequency of Hybrid Meetings**

<b>Reliability Hybrid Meetings</b>	<b>Factor Analysis</b>	<b>Omega</b>
		0.90
How often do you attend hybrid meetings?	.841	
Do you use online platforms like Microsoft Teams, Zoom, and Skype to conduct hybrid meetings at work?	.835	
Do other employees attend hybrid meetings?	.882	
Do other employees join meetings remotely from home or another place of their choice?	.824	

Basic need satisfaction: For the basic need satisfaction in hybrid meetings, the Likert Questions scaled from 1 to 7 starting with 1 being Strongly Agree, Agree, Somewhat Agree Neither Agree or Disagree, Somewhat Disagree, Disagree, and 7 being Strongly Disagree. The

confirmatory factor analysis in Table 2 shows what the dependent variable of basic need satisfaction in this research is consistent of and how it is measured. The scale is reliable with an Omega of .86.

**Table 2. Basic Need Satisfaction**

<b>Reliability BNS</b>	<b>Factor Analysis</b>	<b>Omega</b>
		0.86
Hybrid meetings help me stay in contact with my colleagues and supervisors	.592	
I can trust the people with whom I often have hybrid meetings with	.706	
I feel competent in my skills	.589	
I feel understood by my colleagues and supervisors	.699	
I get along with my colleagues	.622	
I can depend on my team members with work-related issues during a hybrid meeting	.780	
I can relate to people from my work environment	.751	
I am open asking for help during a hybrid meeting	.651	

Stress: Specifically, in the questionnaires, the questions that measured stress in hybrid meetings were in two Likert Questions that were scaled from 1 to 7 starting with 1 being Strongly Agree, Agree, Somewhat Agree Neither Agree or Disagree, Somewhat Disagree, Disagree, and 7 being Strongly Disagree (Karasek et al., 1998). The scale is reliable with an Omega of .79.

**Table 3. Stress**

<b>Reliability Stress</b>	<b>Factor Analysis</b>	<b>Omega</b>
		0.79
I feel tired after looking for prolonged periods of time at the screen	.659	
I feel stressed in hybrid meetings	.643	
I feel my body sore or in pain after prolonged hours of sitting	.765	
I feel exhausted and need some time to rest	.718	

Engagement: The dependent variable engagement in hybrid meetings was measured with Likert Questions scaled from 1 to 7 starting with 1 being Strongly Agree, Agree, Somewhat Agree Neither Agree or Disagree, Somewhat Disagree, Disagree, and 7 being Strongly Disagree (Schaufeli & Baker, 004b). The scale is reliable with an Omega of .76.

**Table 4. Engagement**

<b>Reliability Engagement</b>	<b>Factor Analysis</b>	<b>Omega</b>
		0.76
I am immersed in the conversation	.665	
Time flies quickly	.694	
I am engaged in hybrid meetings	.796	

Digitalization in organizations: The moderator of this thesis, level of digitalization in organizations, was measured by a Likert Question that was scaled from 1 to 7 starting with 1 being Strongly Agree, Agree, Somewhat Agree Neither Agree or Disagree, Somewhat Disagree, Disagree, and 7 being Strongly Disagree (Sharp, 2022). The scale is reliable with an Omega of .89.



**Table 5. Digitalization**

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<b>Reliability Digitalization</b>	<b>Factor Analysis</b>	<b>Omega</b>
		0.89
How technologically advanced would you describe your organization that you work at	.686	
Most of the tasks at my job position are completed on computers	.544	
The organization has supported employees to digitally adapt to hybrid meetings	.752	
The computers on my organization use the latest technological infrastructures to support the job that I do	.864	
My workplace has integrated digital tools and platforms for hybrid meetings	.810	
I was given by the organization a work laptop and a set of headphones to use in hybrid meetings	.715	
The digital advancement in the organization has helped with increasing the efficiency of the employees	.746	
The organization has given training to the employees on how to utilize online platforms and devices for hybrid meetings	.588	

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#### **4. Findings**

In the fourth chapter of the thesis, we present the key findings that have emerged from the research, providing a comprehensive overview of the insights. First, there are some descriptives presented and then we exhibit the results from the regression analysis. Table 10 presents the results of the regression analysis of the frequency of hybrid meetings on BNS. Table 11 and 12 exhibit the results of the regression analysis to showcase the direct effect of the independent variable of hybrid meetings on stress and engagement and the mediating effect of BNS on the two dependent variables of stress and engagement respectively. Tables 13 to 16 examine the moderating effect of digitalization on the relationship between hybrid meetings and stress and engagement, both in Greece and the Netherlands. The full Tables can be found at the end, at the Appendix section.

Out of the 266 questionnaires that were gathered, only 196 were valid, as the rest were removed from the dataset due to missing parts of the questionnaire and they either stopped completing the questionnaire or did not fill out several questions. Out of the 196 participants, 100 were women, 90 were men and 6 of them were nonbinary, exhibiting an almost equal distribution between the participants from both countries. Most of the respondents were in the 25-34-year-old group, covering a little bit over 40% with the 18-24-year-old group coming second with a ten-percentage difference at almost 27%. Most respondents have completed their master's degree at 43.1%, again experiencing a ten-percentage aberration from the second group which was bachelor's degree at 31%. The majority are full-time employees almost at 72%, whereas the smallest group belonged to those currently unemployed and there were no retired participants. The demographics portray a relatively young sample that actively participates in hybrid meetings; due to their constant contact with technology through everyday life, they may have an easier time adjusting to hybrid meetings than elderly employees who are not as familiar with new means of online communication. Most participants are full-time employees; hence they have to attend more meetings during work hours compared to part-time employees.

**Table 6. Demographics of the respondents that participated in the survey**

<b>Demographics</b>				
<b>Variables</b>	<b>Frequency</b>	<b>Percent (%)</b>	<b>Mean</b>	<b>SD</b>
Gender			1.57	.555
Male	90	45.7		
Female	100	50.8		
Non-Binary	6	3.0		
Age			2.26	1.104
18-24	53	26.9		
25-34	79	40.1		
35-44	31	15.7		
45-54	26	13.2		
55-64	7	3.6		
Educational Level			2.74	1.016
High School Diploma	18	9.1		
College degree	19	9.6		
Bachelor's degree	61	31.0		
Master's	85	43.1		
Doctorate's degree	11	5.6		
Other	2	1.0		
Employment Status			1.39	.682
Employed full-time	141	71.6		
Employed part-time	33	16.8		
Unemployed	22	11.2		
Retired	-	-		

*N* = 196

Looking at Table 7, most participants were from the Netherlands, having 106 responses, while in Greece there were 90 questionnaires. Greek organizations have not fully adopted hybrid meetings as everyday work arrangements to complete tasks, making more difficult to attract employees who attend them regularly than in Dutch organizations. Respondents were mainly employed in *Services* (34) or *Other* (52) industries; Finance also had many respondents (25), all industries of the economy that require digital infrastructures to complete work tasks.

Few people from the *Agriculture* (5) or *Construction* (9) industries participated in the survey, due to the limited number of hybrid meetings they attend during their work hours.

**Table 7. Demographics of the respondents that participated in the survey.**

Demographics				
Variables	Frequency	Percent (%)	Mean	S.D
Industry			2.74	1.016
Agriculture, Forestry & Fishing	5	2.5		
Construction	9	3.4		
Finance, Insurance, Real Estate	25	12.7		
Manufacturing	5	2.5		
Public Administration	16	8.1		
Retail Trade	18	9.1		
Services	34	17.3		
Transportation & Public Utilities	7	3.6		
Wholesale Trade	27	13.7		
Other	52	26.4		
Country			3.09	.999
Greece	90	45.7		
The Netherlands	106	54.3		

*N* = 196

At Table 8, it is observed that employees both from Greece and the Netherlands scored high on the Basic Need Satisfaction variable (M=14.78, SD=.968 and M=15.31 SD=.987), Stress (M=29.40, SD=1.277 and M=29.45, SD1=1.282) and Engagement (M=31.06 SD=.994 and M=31.55 SD=.996). The independent variable of hybrid meetings was higher in the Netherlands (M=4.23, SD=1.282) than in Greece (M=2.93, SD=1.570), which was expected to occur due to the frequency of hybrid meetings in work environments in both countries. Similar findings occur for digitalization (Greece: M=3.17, SD=1.360 and the Netherlands M=17.45, SD=1.111). Age groups exhibited similar findings for Greece and the Netherlands (M=2.37, SD=1.238, and M=2.17, SD=.976), employment status (M=1.42, SD=0.736, and M=1.37, SD=0.637) and educational level (M=2.78, SD=1.116 and M=2.72, SD=.930).

**Table 8. Overview of the number of respondents (N), the minimum and maximum scores, the means (M), standard deviation (SD) of the variables**

Country		Minimum	Maximum	Mean	SD
Greece	Stress	26	32	29.40	1.277
	Basic Need Satisfaction	12	17	14.78	.968
	Engagement	28	33	31.06	.994
	Hybrid Meetings	1	6	2.93	1.570
	Digitalization	1	6	3.17	1.360
	Age Groups	1	5		
	Industry	1	11		
	Educational Level	1	6		
	Employment Status	1	3		
	Gender	1	3		
The Netherlands	Stress	26	32	29.45	1.282
	Basic Need Satisfaction	13	17	15.31	.897
	Engagement	29	33	31.35	.996
	Hybrid Meetings	1	6	4.23	1.282
	Digitalization	15	19	17.45	1.111
	Age Groups	1	5		
	Industry	1	11		
	Educational Level	1	5		
	Employment status	1	3		
	Gender	1	3		

*N=196*

Secondly, the correlations between the variables were tested to show the strength and the direction of the linear relationship formed between the variables. As shown in Table 9, BNS has a statistically significantly strong correlation with hybrid meetings ( $r=.285, p<.01$ ). Stress has a weak negative correlation with hybrid meetings ( $r=-.033$ ), but a significant negative correlation with BNS ( $r=-.183, p<.05$ ). However, engagement has a weak positive correlation with hybrid meetings, ( $r=.125$ ), but a positive significant correlation with BNS ( $r=.329, p<.05$ ). What is interesting to observe is the correlation of stress ( $r=-.166, p<.05$ ), engagement ( $r=.351$ ,

p<0.01) and BNS (r=.487, p<.01) have with the moderator of this research, digitalization. It denotes that stress has a significantly strong negative correlation, whereas engagement has a strongly significant positive relationship with digitalization. Nevertheless, there is also a highly significant correlation between hybrid meetings and digitalization (r=.464, p<.01). The control variables of gender and age do have not a strong correlation with the variables. However, the control variable of the country showed a strong statistically significant correlation with hybrid meetings (r=.423, p<0.1), BNS (r=.284, p<0.1) and a statistically significant correlation with digitalization (r=.231, p<0.5).

**Table 9. Correlations between the independent variable of hybrid meetings and the dependent variables of basic need satisfaction, stress and engagement and the moderator of digitalization between Greece and the Netherlands**

	1	2	3	4	5	6	7
1 Hybrid Meetings	-						
2 BNS	.285**	-					
3 Stress	-.033	-.183*	-				
4 Engagement	.111	.329**	-.144	-			
5 Digitalization	.464**	.487**	-.166*	.351**	-		
6 Gender	.002	-.050	.171*	-.066	-.148	-	
7 Age	-.057	-.023	-.136	-.017	-.036	-.129*	-
8 Country	.423**	.284**	.019	.044	.231*	.067	-.044

*N=196* \*. Correlation is significant at the 0.05 level (2-tailed). \*\*Correlation is significant at the 0.01 level (2-tailed).

**Table 10. Regression analysis of the frequency of Hybrid Meetings on Basic Need Satisfaction**

	<b>Models</b>			
	<b>1</b>		<b>2</b>	
	<b>B</b>	<b><math>\beta</math> (SE)</b>	<b>B</b>	<b><math>\beta</math> (SE)</b>
<b>Variables</b>				
Male	3.693	.268 (3.519)	3.508	.255 (3.193)
Female	2.934	.213 (3.249)	2.866	.208 (3.244)
18-24	-.964	-.062 (1.274)	-.446	-.029 (1.268)
35-44	2.288	.123 (1.528)	2.650	.142 (1.508)
45-54	-.156	-.008 (1.620)	.293	.014 (1.602)
55-64	-2.695	-.072 (2.967)	-2.124	-.057 (2.923)
Employed Full-time	-1.119	-.073 (1.417)	-1.154	-.076 (1.392)
Unemployed	-5.478**	-.243 (2.051)	-5.459**	-.243 (2.016)

**Table 10 continued.**

	<b>Models</b>			
	<b>1</b>		<b>2</b>	
	<b>B</b>	<b><math>\beta</math> (SE)</b>	<b>B</b>	<b><math>\beta</math> (SE)</b>
<b>Variables</b>				
Agriculture, Forestry & Fishing	-4.819	-.117 (3.223)	-4.960	-.121 (3.167)
Public Administration	-2.386	-.095 (2.219)	-2.638	-.105 (2.094)
Finance, Insurance, Real Estate	-1.897	-.094 (1.844)	-1.963	-.097 (1.812)
Retail Trade	-4.695*	-.209 (1.988)	-4.466*	-.198 (1.956)
Wholesale Trade	1.790	.090 (1.875)	1.039	.052 (1.866)
Transportation, Public Utilities	-3.895	-.104 (2.955)	-3.965	-.106 (2.903)
Manufacturing	-3.657	-.080 (3.577)	-4.115	-.090 (3.520)
Construction	-6.862*	-.183 (3.102)	-5.685	-.151 (3.083)
Other	-.048	-.003 (1.554)	.004	.000 (1.527)
Hybrid Meetings			.258*	.192 (101)
$R^2$	.231		.279	
Adjusted $R^2$	.118		.167	
F	2.048		2.504	
Sig.	.006		<.001	

N=196 \*Correlation is significant at the 0.05 level (2-tailed). \*\*Correlation is significant at the 0.01 level (2-tailed).

Table 10 portrays the regression analysis of BNS as the independent variable. The only control variables that have a statistically significant relationship with BNS are Unemployed (B= -5.478,  $p < .05$ ) and Retail Trade (B= -4.466,  $p < .05$ ). The results in Model 2 show a statistically significant positive relationship between hybrid meetings and BNS (B= .258,  $p < .05$ ), showing that there is a direct effect of the independent variable of hybrid meetings on BNS.



**Table 11. Regression analysis with Basic Need Satisfaction, Hybrid Meetings, and the dependent variable of Stress**

	Models							
	1		2		3		4	
	B	$\beta$ (SE)	B	$\beta$ (SE)	B	$\beta$ (SE)	B	$\beta$ (SE)
<b>Variables</b>								
Controls	(See Appendix)							
Hybrid Meetings			.062	.075 (.068)	.092	.113 (.069)		
Basic Need Satisfaction					-.100*	-.165 (.051)	-.114*	-.193 (.047)
$R^2$	.210		.215		.234		.034	
Adjusted $R^2$	.094		.093		.110		.102	
F	1.815		1.769		1.889		2.970	
Sig.	.020		.023		0.15		.012	

*N=196 \*Correlation is significant at the 0.05 level (2-tailed). \*\*Correlation is significant at the 0.01 level (2-tailed).*

Table 11 helps answer hypotheses H1a and H2a. There are no statistically significant control variables. It examines H1a which states that hybrid meetings positively relate to stress. Based on the results, hybrid meetings do not have a significant direct positive effect on stress, thus the hypothesis is not supported. Based on the results from Model 3, BNS has a negative statistical significance to stress ( $B=-.100$ ,  $p<0.05$ ). For Model 4, the regression analysis was performed using the Process tool in Model 4 and confidence intervals 90, to further investigate the mediating effect of BNS on stress, which exhibited a statistically significant and negative relation to the dependent variable ( $B=-.114$ ,  $p<0.05$ ). The Process Model also exhibited that the effect is  $-.0602$  and the confidence interval ranges from  $-.1233$  to  $-.0129$  and it does not contain zero, which suggests that there is evidence of a statistically significant negative indirect effect of variable BNS on Stress through mediation. Therefore, h2a which stated that BNS will mediate stress levels is supported.

**Table 12 Regression analysis with Basic Need Satisfaction, Hybrid Meetings and the dependent variable of Engagement**

Variables	Models							
	1		2		3		4	
	B	$\beta$ (SE)	B	$\beta$ (SE)	B	$\beta$ (SE)	B	$\beta$ (SE)
Unemployed	-2.721*	-.305 (.881)	-2.784*	-.312 (.882)	-2.335*	-.262 (.893)	-2.303*	-.257 (.886)
Wholesale Trade	1.455*	.185 (.778)	1.294*	.164 (.791)	1.238**	.157 (.780)	1.444**	.182 (.761)
Controls	See Appendix							
Hybrid Meetings			.050	.094 (.045)	.027	.051 (.046)		
Basic Need Satisfaction					.076*	.067 (.030)	.117*	
$R^2$	.186		.193		.220		.097	
Adjusted $R^2$	.066		.067		.092		.077	
F	1.549		1.538		1.725		9.104	
Sig.	.066		.067		.027		0.54	

*N=196 \*Correlation is significant at the 0.05 level (2-tailed). \*\*Correlation is significant at the 0.01 level (2-tailed).*

Table 12 examines hypotheses H1b and H2b. There are no statistically significant control variables, therefore the whole table is presented at the Appendix section. H1b expected that hybrid meetings negatively relate to engagement. Based on the results, hybrid meetings do not have a significant direct negative effect on engagement, thus this hypothesis is not supported. Table 12 also tests hypothesis 3b which implemented that BNS will mediate engagement levels. The control variables of Model 2 that are statistically significant are Unemployed (B=-2.784,  $p < 0.05$ ) and strongly significant Wholesale Trade (B=1.294,  $p < 0.01$ ). The results in Model 2 show a statistically significant relationship between BNS and engagement in (B=.076,  $p < 0.05$ ). In Model 3 the statistically significant control variable is Unemployed (B=-2.303,  $P < 0.01$ ) and Wholesale Trade (B=1.444,  $p < 0.01$ ). BNS is statistically strongly significant to engagement (B=.079,  $p < 0.01$ ). The Process Model also exhibited that the effect is

.1441 and the confidence interval ranges from .0583 to .2484 and it does not contain zero, which suggests that there is a statistically significant positive indirect effect of variable BNS on Engagement through mediation. Hence, hypothesis 2b is supported.

**Table 13 Regression analysis with a moderating effect of digitalization on the relationship between the independent variable of Hybrid Meetings and the dependent variable of Stress**

Variables	Models							
	1		2		3		4	
	B	β (SE)	B	β (SE)	B	β (SE)	B	β (SE)
Control	See Appendix							
Hybrid Meetings			.051	.063 (.068)	.135	.167 (.073)	.139	.174 (.957)
Digitalization					-.128**	-.260 (.045)	-.222**	-.211 (.226)
HM x Digitalization							-.001	-.016 (.055)
$R^2$	.208		.211		.253		.253	
Adjusted $R^2$	.091		.088		.131		.125	
F	1.778		1.721		2.072		1.976	
Sig.	.024		.029		.005		0.07	

*N=196 \*Correlation is significant at the 0.05 level (2-tailed). \*\*Correlation is significant at the 0.01 level (2-tailed).*

Table 13 shows the moderation regression analysis with hybrid meetings and stress. Based on the results, there are no control variables that exhibit a statistically significant relation with the independent and dependent variables, hence the whole table can be viewed at the Appendix section. In addition, it is visible that hybrid meetings do not have a statistically significant direct effect on stress. In Model 3 digitalization is strongly statistically negatively significant (B=-.128, p<0.1) as well as Model 4 (B=-.222, p<0.1), indicating that digitalization has a direct effect

on the stress levels of employees. However, there is no statistical significance of the moderator of digitalization on stress levels of employees who attend hybrid meetings. Therefore, hypothesis h2a which stated that digitalization will moderate the relationship between hybrid meetings and stress, is not supported.

**Table 14 Regression analysis with a moderating effect of digitalization on the relationship between the independent variable of Hybrid Meetings and the dependent variable of Engagement**

	Models							
	1		2		3		4	
	B	(SE)	B	(SE)	B	(SE)	B	(SE)
<b>Variables</b>								
Controls	See Appendix							
Hybrid Meetings			.046	.087 (.046)	-.006	-.012 (.049)	.241	.454 (.636)
Digitalization					.080*	.249 (.030)	.104*	.322 (.068)
HM x Digitalization							-.002	-.504 (.005)
$R^2$	.185		.190		.229		.229	
Adjusted $R^2$	.063		.064		.102		.096	
F	1.524		1.503		1.802		1.726	
Sig.	.074		.078		.018		0.25	

*N=196 \*Correlation is significant at the 0.05 level (2-tailed). \*\*Correlation is significant at the 0.01 level (2-tailed).*

Table 14 presents the moderating regression analysis between hybrid meetings and engagement to test the hypothesis h2b which encompasses that digitalization will moderate the relationship between hybrid meetings and engagement. There are no control variables that have a statistically strong relation to the variables; the whole table can be seen at the Appendix section. Furthermore, hybrid meetings do not have a statistically significant direct effect on engagement. Models 3 and 4 show that there is a positive strong and statistically significant direct effect of digitalization on engagement ( $B=.080$ ,  $p<0.1$  and  $B=.104$ ,  $p<0.1$ ). However, there is no statistically significant moderating effect of digitalization in the relationship between hybrid meetings and engagement. Therefore, the hypothesis is not supported.

After testing for the moderating effect of digitalization on stress levels which showed that there is no moderating effect, we tested for the moderating effect of country as seen in Table 15, to examine whether the two countries would portray diverse results in the findings. Based on the results, there are no statistically significant control variables. Digitalization has a strong negative statistical significance on stress ( $B=-.129$ ,  $p<0.1$ ). However, the moderator of the country is not statistically significant, exposing that there is no significant difference between the stress level employees of Greece and the Netherlands experience when attending hybrid meetings. Thus, the hypotheses h3a and h4a are not supported.

**Table 15 Regression analysis with a moderating effect of country on the relationship between the independent variable of Hybrid Meetings and the dependent variable of Stress**

Variables	Models							
	1		2		3		4	
	B	$\beta$ (SE)	B	$\beta$ (SE)	B	$\beta$ (SE)	B	$\beta$ (SE)
Controls	See Appendix							
Hybrid Meetings			.051	.063 (.068)	.135	.167 (.073)	.110	.136 (.127)
Country					-.128*	-.260 (.045)	-.129*	-.261 (.045)
HM x Country							.007	.037 (.028)
R	.208		.211		.253		.253	
Adjusted	.091		.088		.131		.125	
F	1.778		1.721		2.072		1.979	
Sig.	.024		.029		.005		0.007	

*N=196 \*Correlation is significant at the 0.05 level (2-tailed). \*\*Correlation is significant at the 0.01 level (2-tailed).*

**Table 16 Regression analysis with a moderating effect of country on the relationship between the independent variable of Hybrid Meetings and the dependent variable of Engagement**

Variables	Models							
	1		2		3		3	
	B	$\beta$ (SE)	B	$\beta$ (SE)	B	$\beta$ (SE)	B	$\beta$ (SE)
Controls	See Appendix							
Hybrid Meetings			.046	.087 (.046)	-.006	-.012 (.049)	.007	.013 (.085)
Country					.080	.249 (.030)	.081	.250 (.030)
HM x Country							-.004	-.031 (.019)
$R^2$	.185		.190		.229		.229	
Adjusted $R^2$	.063		.064		.102		.096	
F	1.524		1.503		1.802		1.726	
Sig.	.074		.078		.018		0.25	

*N=196 \*Correlation is significant at the 0.05 level (2-tailed). \*\*Correlation is significant at the 0.01 level (2-tailed).*

The same test of the moderating effect of country between the relationship of hybrid meetings and engagement was also tested as seen in Table 16, to investigate whether Greece or the Netherlands would exhibit any differences. Based on the results, there are no statistically significant control variables. The moderator of the country is not statistically significant, indicating that there is no significant difference between the engagement levels employees of Greece and the Netherlands experience when attending hybrid meetings. Therefore, hypotheses h3b and h4b are not supported. The next section presents the findings of the regression analysis and an evaluation of the hypotheses that were created on the theoretical basis developed in previous chapters.



## 5. Discussion

This chapter aims to answer the main research question from the findings reported in the previous chapter of this thesis. The question “*How does basic need satisfaction influence the relationship between hybrid meetings and stress and work engagement among employees in Greece and the Netherlands, and how does the level of digitalization in organizations affect this relationship?*” is finally answered through the hypotheses that are theoretically structured and answered from the survey results and data analysis. Taking the results of the analysis into consideration, a lot of things can be acknowledged.

### 5.1 Hypotheses Table

The hypotheses of this study are tested using linear regression with a moderator effect, which can be found in the previous section. It was expected that there was only one independent variable present, hybrid meetings.

**Table 16. Evaluation of Hypotheses**

---

<i>H1a: Hybrid meetings positively relate to stress.</i>	Rejected
<i>H1b: Hybrid meetings negatively relate to engagement.</i>	Rejected
<i>H2a: Basic need satisfaction will mediate the relationship between hybrid meetings and stress.</i>	Accepted
<i>H2b: Basic need satisfaction will mediate the relationship between hybrid meetings and engagement.</i>	Accepted
<i>H3a: Digitalization will moderate the relationship between hybrid meetings and stress.</i>	Rejected
<i>H3b: Digitalization will moderate the relationship between hybrid meetings and engagement.</i>	Rejected
<i>H4a: Country will moderate the relationship between hybrid meetings and stress.</i>	Rejected
<i>H4b: Country will moderate the relationship between hybrid meetings and engagement.</i>	Rejected

---

Both hypotheses H1a and H1b are rejected. The theoretical framework expected that hybrid meetings would have a direct effect on the stress and engagement levels of employees that participate in them. Despite discussing various instances in which hybrid meetings can be a job demand that put pressure on the employees' personal resources and augment their stress levels (Ritcher, 2020; Karl et al., 2022; Hagemann & Klug, 2022), the results of this research found no direct effect of hybrid meetings to stress or engagement. This indicates that there may be more reasons that mediate the stress levels of employees who attend hybrid meetings, that we were not able to detect through this survey research.

Hypotheses H2a and H2b are accepted. The expectations that were supported by the literature in this study (Nielsen et al., 2018; Breugh, 2021; Chai & Park, 2022; Goodbrand & Sundström, 2022) were that the BNS of employees who participated in hybrid meetings would mediate their stress and engagement levels, if the three basic needs of autonomy, competence and relatedness were satisfied. Based on the results shown in Table 10, hybrid meetings have a statistically significant relation to BNS, showing that the latter has a mediating direct effect on hybrid meetings. Thus, employees who participate in hybrid meetings experience a change in the BNS levels. However, based on Tables 11 and 12 BNS seems to have a mediating effect on both stress and engagement of employees, but there is no direct effect on hybrid meetings on either of these two dimensions of well-being.

Both hypotheses 3a and 3b are *rejected*. Based on the results from Tables 13 and 14 presented in the previous section the level of digitalization in organizations can directly help amplify the stress levels experienced and aid in increasing employee engagement. What is seen is that there is a direct effect of digitalization on stress and engagement, but it does not affect in a moderating way their relationship with the independent variable of hybrid meetings, as it was supported by the theoretical framework. Bordi et al. (2018) believe that digitalization can work both as a job resource and a demand (Bakker & Demerouti, 2017), that would moderate the stress/engagement levels of participants of hybrid meetings, depending on the degree of technological advancement.

Employees are still trying to adapt to hybrid meetings, which affects the way they view and internalize them, negatively impacting their well-being. In addition, many organizations may be improperly equipped or prepared to accommodate them, putting extra pressure on their personnel (Hagemann & Klug, 2022; Standaert, Muylle & Basu, 2022). Consequently, digitalization can be a job demand that puts a negative direct effect on stress levels, or if used to their best ability, then they can have a positive direct effect on engagement levels of

employees that join hybrid meetings. It is therefore adequately understood why the findings of this research have exhibited a direct effect of digitalization on stress and engagement levels.

Both hypotheses are rejected, as there is no moderating effect of country in the relationship between the hybrid meetings and the two dimensions of well-being, both in Greece and the Netherlands. During the formulation of the hypotheses h3 and h4, it was believed that because Greece is technologically underdeveloped (Katsikas & Gritzalis, 2017; Pouliakas, 2020) and the Netherlands is one of the most technologically advanced countries (Desi, 2022b; IMD, 2022), employees would show diverse results on stress/engagement levels when participating in hybrid meetings, due to digital infrastructures and institutional capabilities (ILO, 2021c). In addition, the level of digitalization in organizations is affected by many factors, such as the technological and economical infrastructures (Ciuriak & Ptashkina, 2019) and governmental regulators (Justo-Hanani, 2022), which all contribute to the above expectations. Therefore, employees in Greek organizations would be less engaged and more stressed than in Dutch organizations.

However, based on the results of the research, digitalization has no statistically significant moderating effect on the relationship of hybrid meetings and stress or engagement, but they presented a direct effect. Thus, the inefficient utilization of digitalization in hybrid meetings can increase stress levels, disrupt workflow, and hinder well-being (Richter, 2020; Giauque & Weissbrodt, 2021; González-López et al., 2021). When harnessed as a job resource, digitalization can promote interdepartmental communication, enhance autonomy, and alleviate physical and cognitive burdens (Hagemann et al., 2021), enhancing engagement. Consequently, what can be said about hybrid meetings is that they can improve the engagement of employees when they are well structured and assist with enhancing work engagement for participants (Zeuge et al., 2022; Bordi et al., 2018).

It is believed that if the sample of the study was bigger from both Greece and the Netherlands, there would have been statistically significant results that would expose a difference between the stress and engagement levels experienced by participants of hybrid meetings from both countries.

## **5.2 Scientific Implications**

The scientific purpose of this study was translated into two specific research aims, first investigating how the relation of basic need satisfaction and stress and engagement is influenced in the setting of hybrid meetings and second, how the level of digitalization in

organizations as a moderator can influence employee well-being. Based on the findings of the research, several theoretical implications can be made.

This study explained two dimensions of employee well-being. Despite research done on stress, work engagement, and their correlation with BNS (Breugh, 2021), there has been no systematic investigation in which the relation was tested in the setting of hybrid meetings. Most research focused on partially or fully remote meetings (Saatçi et al., 2019). The concept of hybrid meetings as a relatively new work tool (Reed & Allen, 2022) harnessed by organizations can be investigated in greater detail to consider the relevance of well-being with the rise of hybrid work arrangements. The results from this thesis challenge the science of HRM to expand beyond what is already known for hybrid meetings and their influence on employee well-being. Referring to Tables 11 and 12, hybrid meetings do not have a direct effect on the two dimensions of well-being, however, BNS has a mediating effect on them. Therefore, there is an unknown counterbalance effect on BNS of hybrid meetings and stress/engagement which was not detected in the current study.

One important finding of this study is the direct effect of digitalization on the stress and engagement levels of employees. This was in line with what was expected from the theoretical framework, which anticipated that depending on the level of technological advancement in an organization and how well hybrid meetings are structured, believe that digitalization can work both as a job resource and a demand (Bakker & Demerouti, 2017; Bordi et al. 2018; Zeuge et al., 2022), with the potential to either enhance employee engagement or lead to stress (Mäkikangas et al., 2022; Smite et al., 2023).

Moreover, this thesis was able to investigate the influence of hybrid meetings on employee well-being in two distinctively different countries, Greece, and the Netherlands, which due to their economic status and technological adaptation, have exhibited different levels of ICT adaptation in organizations. Underdeveloped countries like Greece have insufficient internal resources, and limited time to implement new digital initiatives contributing to amplifying the differences in the speed and quality of access to technological infrastructures (Billon et al., 2020). The sample from these countries was small, but it still provided useful insights into how their personnel reacted to the pressures of joining hybrid meetings during their work hours.

Previous research has shown technological advancements promote additional support and resources to facilitate hybrid meetings, creating an online space for exchanging information, and knowledge, idea sharing, problem-solving, and decision-making (Attaran et

al., 2019). The impact of digitalization on employee well-being is a complex issue that has the potential to create digital workspaces that accommodate organizational needs, provide flexibility, and enhance engagement. This research is a first step in experimenting with what other aspects can moderate the relationship between hybrid meetings and employee well-being (Reed & Allen, 2022).

### **5.3 Practical Implications**

Several practical implications can be made regarding the theoretical framework and findings from this research. The findings of this research showed that BNS has a mediating effect on the stress and engagement of employees who participate in hybrid meetings. This leads to the necessity for organizations and management to foster different means to help maintain and increase the basic needs satisfaction of their employees participating in hybrid meetings, by giving them the freedom and autonomy to schedule and arrange their team meetings (Allen & Rogelberg, 2013; Roos et al., 2020). This entails those certain aspects of autonomy and feedback, provides employees with a more active role in preparing and executing tasks in their everyday work lives at their convenience, and has more control over their work conditions than those in typical work environments who must be physically present in meetings (Tremblay & Genin, 2007; Knight et al., 2022a).

In addition, by entrusting them to schedule their workdays, they will that the organization trusts them, making them relate more to their work. Finally, managers should provide location-independent access to information resources and skills which further contribute to employees' competence and the feeling of being valued in the workplace (Breugh, 2021). By satisfying their basic needs, organizations can increase employee engagement (Van den Broeck et al., 2011; Sardeshmukh et al., 2012).

Furthermore, one of the findings from this research was the direct effect of digitalization on stress and engagement. Based on the results of the findings, organizations should also focus on minimizing the stress levels that staff experience by providing all the necessary technological infrastructures that would simplify the process of hybrid meetings (González-López et al., 2021). Creating a welcoming and technologically advanced work environment that supports the utilization of hybrid meetings, will result in better-performing employees, who will complete their job duties in a better psychological and physical state (Mihalance & Mihalance, 2022). Moreover, as organizations advance their digitalization, they should ensure that their employees have adequate digital skills to adapt to the work requirements (Bezrukova et al., 2022; Tabor-Blazewicz, 2022).

Due to the frequency of hybrid meetings, the more exposed employees become to them, the more familiar they will become with work expectations and what they need to do to reserve their job resources when attending hybrid meetings (Halbesleben et al., 2014; Bakker & Demerouti, 2017; Hopkins & Bardoel, 2023). By providing such practical solutions and adapting them to this hybrid work arrangement organizations can reduce the challenges associated with stress. As they will not be losing as many resources at work, they will be less prone to feeling various forms of pressure, strain, and stress (González-López et al., 2021).

Furthermore, these recommendations can be implemented in various settings and economies, as this research focused on two countries with distinct levels of digitalization, Greece, and the Netherlands. The findings can easily be adapted to other economies as well, including pioneering hybrid work arrangements, such as hybrid meetings, which have, as already tested, an impact on individuals' psychological and physical well-being (Lyngstadaas & Berg, 2022). In addition, this research included various sectors and industries that harness hybrid meetings, aiming to provide a more generic and representative sample (Young, 2015) that can be easily adapted to more industry-specific settings throughout Europe.

#### **5.4 Limitations**

It is crucial to acknowledge limitations that should be considered for future research. The survey research duration fell short of capturing certain evolving trends or changes in the realm of hybrid meetings. As hybrid meetings have gained popularity as an established work arrangement in most organizations after the pandemic of COVID-19 (Neumayr et al., 2021; Reed & Allen, 2022), the full extent of their impact on the two dimensions of employee well-being, namely stress and work engagement levels, could not be fully developed.

In addition, another limitation is maturation, which is a threat associated with the time that has passed since studying a phenomenon (Ferguson, 2004). As already discussed, hybrid meetings are a relatively new work arrangement that still has not fully impacted the well-being of employees and the findings of this study may not be sufficient to explain certain trends, negatively influencing the external validity of the results. Future research could conduct a longitudinal study to capture psychological changes experienced by employees because of hybrid meetings in the workplace. That would explain more in-depth their impact and strengthen the validity of the findings, by providing detailed insights into how employee well-being is being influenced after prolonged exposure to the act of hybrid meetings (Lee, 2018).

Secondly, the sample size of the research was rather small to represent a sufficient group of employees both from Greece (N=90) and the Netherlands (N=106) that participate in

hybrid meetings, since convenience sampling was used (Stratton, 2021). One of its main constraints is that it can lead to poor participation as individuals can choose on their own if they are willing to participate in the study. Furthermore, because it is a cross-sectional study, this study compared the two countries, on how digitalization affects stress and/or work engagement levels of hybrid meeting attendees. Because Greece and the Netherlands exhibit distinctively different technological dispositions, it led to diverse levels of digitalization (Billon et al., 2010; Bezrukova et al., 2022). Therefore, digitalization may not be measured in the same way by the employees, as they work under different standards with the effect of hybrid meetings on stress and work engagement differentiating for the participants from Greece and the Netherlands respectively (ILO, 2021c).

All the above have also led to the limited external validity of the collected data in this study. Several factors contributed to this limitation such as time constraints and the research settings, as convenience sampling can lead to sampling bias, resulting in finding lack of credibility (Stratton, 2021). As already discussed, hybrid meetings are a relatively new work arrangement that still has not fully impacted the well-being of employees and the findings of this study may not be sufficient to explain certain trends, negatively influencing the external validity of the results.

Lastly, the current study adopted a cross-sectional research design, which potentially poses a threat to the internal validity of the findings and thus, the conclusions. It can create a selection bias (Lee, 2018), as this study needed to examine how hybrid meetings affect the stress and engagement levels of participants, it focused on industries and employees that facilitate them in the work, leaving out part of the population that is not harnessing them in everyday work tasks.

## **5.5 Future Research**

The findings presented in this thesis offer insightful perspectives that can contribute to the advancement of employee well-being theory, particularly in hybrid work settings and environments that will continue to be part of most companies' organizational structure. Hybrid meetings are still pristine for most organizations and especially for those who still have not fully adapted to this hybrid work arrangement. The results from this research were not able to fully detect the factors that influence the stress levels of employees who participate in hybrid meetings. It is understood that the stress levels that people may experience in their work lives may derive from personal attributions, such as lifestyle, character, and challenges in personal life (Lazarus & Folkman, 1984). Given sufficient resources, future research should incorporate

more elaborative scales and extend the research to examine what other factors are influencing the stress levels experienced by employees when they are attending hybrid meetings.

Another research can delve into technostress (Hagemann & Klug, 2022), which with the rise of technological advancements has skyrocketed in the last few years. As already mentioned in the theoretical framework, employees have started to show signs of technology overload with increased fatigue, irritability, and the inability to switch off from work and rest properly (ILO, 2020). It is important to delve into technostress when examining stress in hybrid meetings, as studies have linked technostress to physiological stress reactions, self-reported stress, exhaustion, and decreased job satisfaction (Hagemann & Klug, 2022). Therefore, future research can examine the psychological, mental, and physical outcomes of information processing overload that participants of hybrid meetings may experience.

Additionally, the theoretical framework described that the two divergent technologically advanced countries exhibit diverse levels of digitalization in their organizations, which would influence the relationship of hybrid meetings with the two dimensions of employee well-being. It would be interesting to assess the stress levels of employees who join hybrid meetings in various organizations throughout Europe to understand to what degree the technological and economic infrastructures of a country can impact employee well-being. It is believed that the findings might have been statistically significant if there had been a bigger sample to portray the technological differences between the two countries and better highlight the differences in ICT implementation in the workplace and thus, in hybrid meetings. The results of this study can be a first step in investigating how the levels of digital infrastructure implementation in organizations throughout Europe affect the adaptability of employees to hybrid meetings.

It is crucial to also acknowledge limitations that should be considered for future research. Future research can state in a more structured manner what is implied by digitally advanced so that participants from various countries can have the same guidelines to answer questions regarding the level of digitalization in organizations. A longitudinal study can capture the psychological changes experienced by employees because of hybrid meetings in the workplace, over the span of 2 to 3 years, to explain more in-depth their impact and strengthen the validity of the findings, by providing detailed insights into how employee well-being is being influenced after prolonged exposure to the act of hybrid meetings (Lee, 2018). Future research can investigate the impact of hybrid meetings using a probability sample and including



people from various educational and industry backgrounds, to reduce any selection bias and give an equal chance for everyone to participate in the research (Caruana et al., 2015).

## **5.6 Conclusion**

The purpose of this study was to investigate how hybrid meetings affect employee well-being, how BNS mediates their levels of stress and work engagement both in Greece and the Netherlands, and how the level of digitalization of both countries can moderate this relationship. The objective was to examine why there has been a rise in the stress levels employees have been experiencing since the emergence and establishment of hybrid meetings as a hybrid working tool. To examine and prove the relationships mentioned in the main research question, which is *“How does basic need satisfaction influence the relationship between hybrid meetings and stress and work engagement among employees in Greece and the Netherlands, and how does the level of digitalization in organizations affect this relationship?”*, an extensive theoretical background was developed focusing on the establishment of basic need satisfaction as a job resource that would promote employee engagement and constrict the stress levels experienced while participating in hybrid meetings.

In addition, cross-sectional quantitative survey research was conducted consisting of questionnaires that were handed to employees from different industries through social media platforms. Only hypotheses h2a and b were accepted, which expected that BNS will have a mediating effect on stress and engagement and these observations are in line with what has been developed in this thesis’s theoretical section (Van den Broeck et al., 2011). Based on the results of the research, basic need satisfaction and the competencies of autonomy, competence, and relatedness (Deci & Ryan, 2008; Nielsen et al., 2018), impact the stress and engagement levels that employees experience while participating in hybrid meetings. In addition, as there is a direct effect of hybrid meetings on BNS which affects the well-being of employees, organizations must adopt an integrated approach that leverages the benefits of participating in hybrid meetings (Hagemann & Klug, 2022).

What was unexpected was that there is no direct effect of hybrid meetings on the stress and engagement levels personnel experience while attending. Based on the theoretical framework, it was expected that employees who get exposed often to hybrid meetings would become less stressed and more engaged if the right technological tools were in place to simplify their process. This may be due to stress being influenced by numerous factors, such as job insecurity (Karasek et al., 1998), or disruptive situations that add up to the stress levels

employees experience in their workflow (Johnson & Mabry, 2022), but we cannot for sure indicate what is creating the stress employees get while in hybrid meetings.

The main conclusion of this thesis and its findings is that hybrid meetings do not have a direct impact on employee engagement and stress and there are statistically significant differences between Greece and the Netherlands. However, because hybrid meetings affect BNS, which has a mediating effect on the stress and engagement levels of participants, it indicates that there is a counterbalancing effect of hybrid meetings on stress and engagement, which was not detected in this study. This research has created the foundations for future research to examine what other factors contribute to higher stress levels when employees participate in hybrid meetings.

This leads to answering the second part of the research question. Digitalization has a direct effect on stress and engagement but not a moderating effect as it was expected based on the theoretical framework. Digitalization independently of the ability of organizations to introduce advanced digital technologies in hybrid work arrangements for the mental health of their employees (Hagemann et al., 2021), cannot moderate the stress levels of employees and encourage work engagement in hybrid meetings. Therefore, it is understood that the uneven distribution of technological resources across different countries can impact the well-being of employees positively or negatively (Ciuriak & Ptashkina, 2019; ILO, 2021b). Despite Greece and the Netherlands having shown distinct levels of adaptation to technological improvements (Katsikas & Gritzalis, 2017; Nederland Digitaal, 2021; IMD, 2022), their results showed no significant differences between stress and engagement levels.

Hybrid meetings aid employees in remaining in contact with colleagues and therefore relate more to the organizations and further engage in their jobs and tasks (Van den Broeck et al., 2011; Qin et al., 2022). By providing employees with the right technological tools to conduct hybrid meetings effectively (Constantinides & Quercia, 2022), organizations can foster employee well-being. The relationship between well-being, work engagement, stress, and the evolving landscape of hybrid meetings highlights the need for organizations to address the challenges and opportunities presented by this new era of hybrid work.

Employee well-being is a multifaceted construct that involves psychological, physical, and social dimensions influenced by numerous factors, and the emergence of hybrid work and the incorporation of technology by organizations have led to the emergence of safeguarding employee well-being. In the pursuit of a harmonious hybrid work ecosystem, organizations should establish infrastructures for their personnel that utilize hybrid work models

(Constantinides & Quercia, 2022), to achieve well-being at work (Rogelberg et al., 2014; Palumbo et al., 2022). That way, employees can thrive in the hybrid meeting era in which employee well-being and engagement are pillars of organizational success (Mihalance & Mihalance, 2022).

## References

- Alfes, K., Avgoustaki, A., Beauregard, T.A., Cañibano A. & Muratbekova-Touron, M. (2022). New ways of working and the implications for employees: a systematic framework and suggestions for future research, *The International Journal of Human Resource Management*. 4361-4385. [10.1080/09585192.2022.2149151](https://doi.org/10.1080/09585192.2022.2149151)
- Allen, J. A., & Rogelberg, S. G. (2013). Manager-Led Group Meetings: A Context for Promoting Employee Engagement. *Group & Organization Management*. 38(5), 543–569. <https://psycnet.apa.org/doi/10.1177/1059601113503040>
- Allen, J., Thiese, M., Eden, E. & Knowles, S. (2022). Why Am I So Exhausted? *Journal of Occupational and Environmental Medicine*. 64(12), 1053-1058. 10.1097/JOM.0000000000002641
- Allison, P. D. (1999). *Multiple Regression: A Primer*. Pine Forge Press.
- Anderson, B. & Patton, S. (2022). In a Hybrid World, Your Tech Defines Employee Experience. *Information Management*. Harvard Business Review.
- Attaran, M., Attaran, S., & Kirkland, D. (2019). The need for digital workplace: Increasing workforce productivity in the information age. *International Journal of Enterprise Information Systems*. 15(1), 1–23. <http://dx.doi.org/10.4018/IJEIS.2019010101>
- Aksoy, G. C., Barrero, J. M., Bloom, N., Davis, St. J., Dolls, M. & Zarate, P (2022). Working from Home Around the World. *Brookings Papers on Economic Activity*.
- Bakker, A. B. & Demerouti, E. (2017). Job Demands–Resources Theory. *Journal of Occupational Health Psychology*. 22(3), 273-285. 10.1037/ocp0000056.
- Baker, D.B. (1985). The Study of Stress at Work. *Annual Review of Public Health*. 6(1), 367-381. <https://doi.org/10.1146/annurev.pu.06.050185.002055>
- Ball, H.L. (2019). Conducting Online Surveys. *Journal of Human Lactation*. 35(3), 413-417. [10.1177/0890334419848734](https://doi.org/10.1177/0890334419848734)
- Barber, L. K. & Santuzzi, A.M. (2015). Please respond ASAP: workplace telepressure and employee recovery. *Journal of Occupational Health Psychology*. 172-89. <https://doi.org/10.1037/a0038278>.
- Bartel, C. A., Wrzesniewski, A., & Wiesenfeld, B. M. (2011). Knowing where you stand: Physical isolation, perceived respect, and organizational identification among virtual employees. *Organization Science*. 23(3), 743–757. <https://doi.org/10.1287/orsc.1110.0661>

- Bartels, A.L., Peterson, S.J. & Reina, C.S. (2019). Understanding well-being at work: Development and validation of the eudaimonic workplace well-being scale. *PLOS ONE* 14(4). <https://doi.org/10.1371/journal.pone.0215957>
- Barret-Cheatham E., Williams L. A., Bednall T. C. (2016). A differentiated approach to the link between positive emotion, motivation, and eudaimonic well-being. *The Journal of Positive Psychology*, 11, 595-608. <https://dx.doi.org/10.1080/17439760.2016.1152502>
- Bezrukova, N., Huk, L., Chmil, H., Verbivska, L., Komchatnykh, O. & Kozlovskiy, Y. (2022). Digitalization as a Trend of Modern Development of the World Economy. *WSEAS Transactions on Environment and Development*. 18, 120-129. 10.37394/232015.2022.18.13.
- Billon, M., Lera-Lopez, F., & Marco, R. (2010). Differences in digitalization levels: a multivariate analysis studying the global digital divide. *Review of World Economics*. 146(1), 39–73. <http://www.jstor.org/stable/40587845>
- Blechman, Y. & Tóth-Király, I., Nadon, L., Fernet, C. & Morin, A. (2022). On the global and specific nature of psychological need satisfaction and work motivation in predicting employees' wellbeing: A self-determination theory perspective. *Journal of Management & Organization*. <http://dx.doi.org/10.1017/jmo.2022.76>
- Bloom, N., Han, R. & Liang, J. (2023). How Hybrid Working From Home Works Out. National Bureau of Economic Research. 10.3386/w30292.
- Bordi, L., Okkonen, J., Mäkinen, J.-P., & Heikkilä-Tammi, K. (2018). Communication in the Digital Work Environment: Implications for Wellbeing at Work. *Nordic Journal of Working Life Studies*, 8(S3). <https://doi.org/10.18291/njwls.v8iS3.105275>
- Borst, R., & Blom, R. (2022). Stressed out public servants? Testing the stress appraisal of psychological and emotional stressors on stress reactions through psychological capital. *International Journal of Public Sector Management*. 35. 113-132.
- Borst, R. T., Kruijven, P. M., & Lako, C. J. (2019). Exploring the Job Demands–Resources Model of Work Engagement in Government: Bringing in a Psychological Perspective. *Review of Public Personnel Administration*, 39(3), 372–397. <https://doi-org.proxy.library.uu.nl/10.1177/0734371X17729870>
- Borst, R. T., & Knies, E. (2023). Well-Being of Public Servants Under Pressure: The Roles of Job Demands and Personality Traits in the Health-Impairment Process. *Review of Public Personnel Administration*. 43(1), 159–184. <https://doi-org.proxy.library.uu.nl/10.1177/0734371X211052674>

- Breaugh, J. (2021). Too Stressed To Be Engaged? The Role of Basic Needs Satisfaction in Understanding Work Stress and Public Sector Engagement. *Public Personnel Management*, 50(1), 84–108. <https://doi-org.proxy.library.uu.nl/10.1177/0091026020912516>
- Brien, M., Forest, J., Mageau, G. A., Boudrias, J.-S., Desrumaux, P., Brunet, L., & Morin, E. M. (2012). The Basic Psychological Needs at Work Scale: Measurement invariance between Canada and France. *Applied Psychology: Health and Well-Being*, 4(2), 167–187. <https://doi-org.proxy.library.uu.nl/10.1111/j.1758-0854.2012.01067.x>
- Brodny, J. & Tutak, M. (2021). Assessing the level of digitalization and robotization in the enterprises of the European Union Member States. *PLOS ONE* 16(7). <https://doi.org/10.1371/journal.pone.0254993>
- Brown, T. A. & Moore, M. T. (2012). Confirmatory factor analysis. In R. H. Hoyle *Handbook of structural equation modeling*. 361–379.
- Buyukguzel, S. & Mitchell, R. (2023). Progressivity in Hybrid Meetings: Daily Scrum as an Enabling Constraint for a Multi-Locational Software Development Team. *Comput Supported Coop Work* <https://doi-org.proxy.library.uu.nl/10.1007/s10606-022-09454-3>
- Cao, H., Lee, C.-J., Iqbal, S., Czerwinski, M., Wong, P., Rintel, S., Hecht, B., Teevan, J., & Yang, L. (2021). Large Scale Analysis of Multitasking Behavior During Remote Meetings. In Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (CHI '21). Association for Computing Machinery, New York, NY, USA. 448, 1–13. <https://doi.org/10.1145/3411764.3445243>
- Caruana, E.J., Roman, M., Hernández-Sánchez, J. & Solli, P. (2015) Longitudinal studies. *J Thorac Dis*. 7(11), 537-540. <https://doi.org/10.3978%2Fj.issn.2072-1439.2015.10.63>
- Cedefop (2018). Insights into skill shortages and skill mismatch: learning from Cedefop's European skills and jobs survey. Luxembourg: Publications Office of the European Union. Cedefop reference series. 106
- Chai, D. S. & Park, S. (2022). The increased use of virtual teams during the Covid-19 pandemic: implications for psychological well-being. *Human Resource Development International*. 25(2), 199-218. [10.1080/13678868.2022.2047250](https://doi.org/10.1080/13678868.2022.2047250)
- Charalampous, M., Grant, C. A., Tramontano, C., & Michailidis, E. (2019). Systematically reviewing remote e-workers' well-being at work: A multidimensional approach. *European Journal of Work and Organizational Psychology*. 28(1), 51–73. <https://doi.org/10.1080/1359432X.2018.1541886>

- Chesley, N. (2014). Information and communication technology use, work intensification and employee strain and distress. *Work, Employment and Society*. 28(4), 589–610. <https://doi-org.proxy.library.uu.nl/10.1177/0950017013500112>
- Cijan, A., Jenič, L., Lamovsek, A. & Stemberger, J. (2019). How digitalization changes the workplace. *Dynamic Relationships Management Journal*. 8. 3-21. 10.17708/DRMJ.2019.v08n01a01.
- Ciuriak, D., & Ptashkina, M. (2019). Leveraging the Digital Transformation for Development: A Global South Strategy for the Data-driven Economy. Centre for International Governance Innovation. <http://www.jstor.org/stable/resrep21057>
- Constantinides, M. & Quercia, D. (2022). The Future of Hybrid Meetings. *Human-Computer Interaction*. <https://doi-org.proxy.library.uu.nl/10.1145/3533406.3533415>
- Dawson, J. F. (2014). Moderation in management research: What, why, when, and how. *Journal of Business and Psychology*. 29, 1-19. <http://dx.doi.org/10.1007/s10869-013-9308-7>
- Deci, E. L. & Ryan, R. M. (2008). Self-Determination Theory. *Canadian Psychology*. 49(3), 182-185. 10.1037/A0012801.
- Demerouti, E., Bakker, A. B., Nachreiner, F. & Schaufeli, W. B. (2001). The Job Demands–Resources Model of Burnout. *Journal of Applied Psychology*. 86(3), 499-512.
- DESI (2022a). Greece in the Digital Economy and Society Index. European Commission.
- DESI (2022b). The Netherlands in the Digital Economy and Society Index. European Commission.
- DESI (2022c). European Analysis. Thematic Chapters. European Commission.
- Ellis, R., Goodacre, T., Mortensen, N., Oepen, R. S. & Peter A Brennan, P. A. (2022). Application of human factors at hybrid meetings: facilitating productivity and inclusivity, *British Journal of Oral and Maxillofacial Surgery*. 60(6), 740-745. 10.1016/j.bjoms.2020.04.046
- Elmassah, S. & Hassanein, E.A. (2022). Digitalization and subjective wellbeing in Europe. *Digital Policy, Regulation and Governance*. 24(1), 52-73. <https://doi-org.proxy.library.uu.nl/10.1108/DPRG-05-2021-0060>
- Eurofound & ILO (2017). Working Anytime, Anywhere: The Effects on the World of Work. Geneva: Publications Office of the European Union.
- European Commission (2019). The Digital Economy and Society Index (DESI): 2019 Country Report Greece.

- Ferguson, L. (2004). External Validity, Generalizability, and Knowledge Utilization. *Journal of Nursing Scholarship*. 36 16-22. <https://doi-org.proxy.library.uu.nl/10.1111/j.1547-5069.2004.04006.x>
- Forrier, A., Verbruggen, M., & De Cuyper, N. (2015). Integrating different notions of employability in a dynamic chain: The relationship between job transitions, movement capital and perceived employability. *Journal of Vocational Behavior*. 89, 56–64. <https://doi-org.proxy.library.uu.nl/10.1016/j.jvb.2015.04.007>
- Fotiadis, A., Abdulrahman, K. & Spyridou, A. (2019). The Mediating Roles of Psychological Autonomy, Competence and Relatedness on Work-Life Balance and Well-Being. *Frontiers in Psychology*. 10. <https://www.frontiersin.org/articles/10.3389/fpsyg.2019.01267>
- Galanti, T., Guidetti, G., Mazzei, E., Zappalà, S. & Toscano, F. (2021). Work From Home During the COVID-19 Outbreak: The Impact on Employees' Remote Work Productivity, Engagement, and Stress. *Journal of occupational and environmental medicine / American College of Occupational and Environmental Medicine*. 63, 426-432. <https://doi.org/10.1097/jom.0000000000002236>
- Georgescu, M., Lungu, A., Bogoslov, A. & Stoica, E. (2023). European Efficiency or Inefficiency in Economic Growth Through Digital Transformation. *Scientific Annals of Economics and Business*. *Scientific Annals of Economics and Business*. 69(4). 10.47743/saeb-2023-0010
- Giauque, D. & Weissbrodt, R. (2021). Chapter 16: Job demands-resources model: toward an institutional reading. In *Research Handbook on HRM in the Public Sector*. Cheltenham, UK: Edward Elgar Publishing. 218-231.
- Giauque, D., Renard, K., Cornu, F., & Emery, Y. (2022). Engagement, Exhaustion, and Perceived Performance of Public Employees Before and During the COVID-19 Crisis. *Public Personnel Management*. 51(3), 263–290. <https://doi.org/10.1177/00910260211073154>
- González-López, Óscar. R., Buenadicha-Mateos, M., & Sánchez-Hernández, M. I. (2021). Overwhelmed by Technostress? Sensitive Archetypes and Effects in Times of Forced Digitalization. *International Journal of Environmental Research and Public Health*, 18(8), 4216. <http://dx.doi.org/10.3390/ijerph18084216>



- Goodboy, A. K. & Martin, M. M. (2020). Omega over alpha for reliability estimation of unidimensional communication measures. *Annals of the International Communication Association*. 44(4), 422-439, [10.1080/23808985.2020.1846135](https://doi.org/10.1080/23808985.2020.1846135)
- Goodbrand Skagerlind, V., & Sundström, E. (2022). Emphasizing engagement: adapting to the hybrid environment through new interaction technologies: Evaluating Audience Engagement Platforms impact on engagement in hybrid meetings and presentations.
- Guest, D. E. (2017). Human resource management and employee well-being: towards a new analytic framework. *Human Resource Management Journal*. 27(22– 38). [10.1111/1748-8583.12139](https://doi.org/10.1111/1748-8583.12139).
- Hagemann, V., Meinecke, J., Schaper, M., Debbing, Ch., Ruiner, C., Klumpp, C. & Hesenius, M. (2021). Mental Stress and Strain Assessment in Digital Work: The Measurement Instrument MESTAT for Employees and Leaders. *Zeitschrift für Arbeits- und Organisationspsychologie A&O* 67, 16-30. <https://doi-org.proxy.library.uu.nl/10.1026/0932-4089/a000387>
- Hagemann, V. & Klug, K. (2022). Human Resource Management in a Digital Environment. In: Hornuf, L. (eds) *Diginomics Research Perspectives. Advanced Studies in Diginomics and Digitalization*. Springer, Cham. [https://doi-org.proxy.library.uu.nl/10.1007/978-3-031-04063-4\\_3](https://doi-org.proxy.library.uu.nl/10.1007/978-3-031-04063-4_3)
- Haitham H. A. & Khalid N. A. (2022). Unlock the black box of remote e-working effectiveness and e-HRM practices effect on organizational commitment, *Cogent Business & Management*. 9(1). <https://doi.org/10.1080/23311975.2022.2153546>
- Halbesleben, J. R. B., Neveu, J.-P., Paustian-Underdahl, S. C., & Westman, M. (2014). Getting to the “COR”: Understanding the Role of Resources in Conservation of Resources Theory. *Journal of Management*. 40(5), 1334–1364. <https://doi-org.proxy.library.uu.nl/10.1177/0149206314527130>
- Halvorsen, I. J., Skogestad, S., John C. Morud, J. C. & Alstad, V. (2003). Optimal Selection of Controlled Variables. *Industrial & Engineering Chemistry Research*. 42(14), 3273-3284. <https://doi-org.proxy.library.uu.nl/10.1021/ie020833t>
- Hayes, A. F. (2017). *Introduction to Mediation, Moderation, and Conditional Process Analysis. A Regression-Based Approach* (2nd ed.). New York, NY: The Guilford Press.

- Hill, N. S., Axtell, C., Raghuram, S., & Nurmi, N. (2022). Unpacking Virtual Work's Dual Effects on Employee Well-Being: An Integrative Review and Future Research Agenda. *Journal of Management*. <https://doi-org.proxy.library.uu.nl/10.1177/01492063221131535>
- Hobfoll, S. E. (2002). Social and psychological resources and adaptation. *Review of General Psychology*, 6, 307–324. <https://doi-org.proxy.library.uu.nl/10.1037/1089-2680.6.4.307>
- Holtom, B., Baruch, Y., Aguinis, H., & Ballinger, G. (2022). Survey response rates: Trends and a validity assessment framework. *Human Relations*, 75(8), 1560–1584. <https://doi-org.proxy.library.uu.nl/10.1177/00187267211070769>
- Hopkins, J. & Bardoel, A. (2023). The Future Is Hybrid: How Organisations Are Designing and Supporting Sustainable Hybrid Work Models in Post-Pandemic Australia. *Sustainability*, 15(4). <https://doi.org/10.3390/su15043086>
- ILO (2020). Teleworking during the COVID-19 pandemic and beyond A practical guide.
- ILO (2021a). How the COVID-19 pandemic is changing business: A Literature Review. Geneva.
- ILO (2021b). Changing demand for skills in digital economies and societies: Literature review and case studies from low- and middle-income countries.
- ILO (2021c). The role of digital labour platforms in transforming the world of work.
- ILO (2022). Digitalization and Employment. A Review.
- ITU (2020). Measuring digital development Facts and figures. Geneva (Switzerland), International Telecommunication Union.
- IMD (2022). World Digital Competitiveness Ranking 2022: Tackling cyber threats and appealing digital users: look beyond R&D to secure digitalization. An overview.
- Jandric, M. & Randelović, S. (2018). Adaptability of the workforce in Europe – Changing skills in the digital era. 36. 757-776. 10.18045/zbefri.2018.2.757.
- Johnson, B. J., & Mabry, J. B. (2022). Remote work video meetings: Workers' emotional exhaustion and practices for greater well-being. *German Journal of Human Resource Management*, 36(3), 380–408. <http://dx.doi.org/10.1177/23970022221094532>
- Johnston, M. M. & Finney, S. J. (2010). Measuring basic needs satisfaction: Evaluating previous research and conducting new psychometric evaluations of the Basic Needs Satisfaction in General Scale. *Contemporary Educational Psychology*, 35(4), 280-296. <https://doi.org/10.1016/j.cedpsych.2010.04.003>

- Justo-Hanani, R. (2022). The politics of Artificial Intelligence regulation and governance reform in the European Union. *Policy Science*. 55, 137–159. <https://doi.org/10.1007/s11077-022-09452-8>
- Kahn, W. A. (1990). Psychological Conditions of Personal Engagement and Disengagement at Work. *The Academy of Management Journal*. 33(4), 692–724. <https://doi.org/10.2307/256287>
- Karasek, R.A. (1979). Job demands, job decision latitude, and mental strain: implications for job redesign. *Administrative Science Quarterly*, Vol. 24, pp. 285-308.
- Karasek, R., Brisson, C., Kawakami, N., Houtman, I., Bongers, P. & Amick, B. (1998). The Job Content Questionnaire (JCQ). *Journal of Occupational Health Psychology*, 3 (4), 322-355.
- Karl, K. A., Peluchette, J. V., & Aghakhani, N. (2022). Virtual Work Meetings During the COVID-19 Pandemic: The Good, Bad, and Ugly. *Small Group Research*. 53(3), 343–365. <https://dx.doi.org/10.1177/10464964211015286>
- Kathimerini (2023). Hybrid work: The employees want in, companies hesitate. [Τηλεργασία: Οι εργαζόμενοι θέλουν, οι εταιρείες διστάζουν | Η ΚΑΘΗΜΕΡΙΝΗ \(kathimerini.gr\)](https://www.kathimerini.gr/ειδησεις/εργαζόμενοι_θέλουν_οι_εταιρείες_διστάζουν)
- Katsikas, S. K. & Gritzalis, S. (2017). Digitalization in Greece: State of Play, Barriers, Challenges, Solutions. In: Paulin, A., Anthopoulos, L. & Reddick, C. *Beyond Bureaucracy. Public Administration and Information Technology*. 25. Springer, Cham. [https://econpapers.repec.org/scripts/redirector.php?u=https%3A%2F%2Fdoi.org%2F10.1007%2F978-3-319-54142-6\\_19;h=repec:spr:paitcp:978-3-319-54142-6\\_19](https://econpapers.repec.org/scripts/redirector.php?u=https%3A%2F%2Fdoi.org%2F10.1007%2F978-3-319-54142-6_19;h=repec:spr:paitcp:978-3-319-54142-6_19)
- Kaya, C. (2015). Internal validity: A must in research designs. *Educational Research and Reviews*. 10(2), 111-118. <https://doi.org/10.5897/ERR2014.1835>
- KIM (2022). Dutch people expect to continue working from home twice as much as before the pandemic. [Dutch people expect to continue working from home twice as much as before the pandemic | News | Knowledge Institute for Mobility Policy \(kimnet.nl\)](https://www.kimnet.nl/en/news/dutch-people-expect-to-continue-working-from-home-twice-as-much-as-before-the-pandemic)
- Knight, C., Keller, A. C., & Parker, S. K. (2022a). Job demands, not resources, predict worsening psychological distress during the early phase of the COVID-19 pandemic. *Work and stress*. <https://doi.org/10.1080/02678373.2022.2117879>
- Knight, C., Olaru, D., Anne-Lee, J. & Parker, S. K. (2022b). The Loneliness of the Hybrid Worker Having supportive colleagues in the workplace is key to feeling less isolated when working from home. *MIT Sloan Management Review*.

- Kniffin, K. M., Narayan, J., Anseel, F., Antonakis, J., Ashford, S.P., Bakker, A.B., Bamberger, P., Bapuji, H., Bhawe, D.P., Choi, V.K., Creary, S.J., Demerouti, E., Flynn, F.J., Gelfand, M.J., Greer, L.L., Johns, G., Kesebir, S., Klein, P.G., Lee, S.Y., Ozelik, H., Petriglieri, J.L., Rothbard, N.P., Rudolph, C.W., Shaw, J.D., Sirola, N., Wanberg, C.R., Whillans, A., Wilmot, M.P. & Vugt, M. (2021). COVID-19 and the Workplace. *American Psychologist*. 76(1), 63-77. [10.1037/AMP0000716](https://doi.org/10.1037/AMP0000716).
- Kropp, Br. (2021). 9 Trends That Will Shape Work in 2021 and Beyond. *Harvard Business Review*.
- Laker, B. (2021). 94% Of Workers Are Stressed: KPMG Research Reveals Covid-19's Lingering Effects On Employees. *Forbes*.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.
- Lee, B. (2018). *Research Concepts for the Practitioner of Educational Leadership*. Brill.
- Lehmann-Willenbrock, N., Allen, J.A. & Belyeu, D. (2016). Our love/hate relationship with meetings: Relating good and bad meeting behaviors to meeting outcomes, engagement, and exhaustion. *Management Research Review*. 39(10), 1293-1312. <https://doi.org/10.1108/MRR-08-2015-0195>
- Lyngstadaas, H. & Berg, T. (2022). Harder, better, faster, stronger: digitalisation and employee well-being in the operations workforce. *Production Planning & Control*, [10.1080/09537287.2022.2153735](https://doi.org/10.1080/09537287.2022.2153735)
- Mäkikangas, A., Juutinen, S., Mäkinen J.P., Sjöblom, K. & Oksanen, A. (2022). Work engagement and its antecedents in remote work: A person-centered view. 392-416. <http://dx.doi.org/10.1080/02678373.2022.2080777>
- Marks, P. (2020). Virtual collaboration in the age of the coronavirus. *Communications of the ACM*. 63(9), 21-23.
- Marsh, E., Vallejos, E. P. & Spence, A. (2022). The digital workplace and its dark side: An integrative review. *Computers in Human Behavior*. 128. <https://doi.org/10.1016/j.chb.2021.107118>.
- Memon, M.A., Cheah, J., Ramayah, T., Ting, H., Chuah, F., & Cham, T.H. (2019). Moderation Analysis: Issues and Guidelines. *Journal of Applied Structural Equation Modeling*. <https://doi.org/10.47263/jasem.3%281%2901>
- Mihalance, M. & Mihalance, O. R. (2022). How workplace support for the COVID-19 pandemic and personality traits affect changes in employees' affective commitment to

- the organization and job-related well-being. *Human Resource Management*. 61(3), 295–314. <https://doi.org/10.1002/hrm.22082>
- Mohammed, G. (2022). The Impact of Technostress on Employees' Well-Being: The Role of Work Engagement and Perceived Supervisor Support. *International Journal of Science and Research*. 11.
- Monica, M., Ingusci, E., Signore, F., Manuti, A., Giancaspro, M. L., Russo, V., Zito, M. & Cortese, C. G. (2020). Wellbeing Costs of Technology Use during Covid-19 Remote Working: An Investigation Using the Italian Translation of the Technostress Creators Scale. *Sustainability*. 12(15). <https://doi.org/10.3390/su12155911>
- Mosteanu, N. R. (2020). Challenges for organizational structure and design as a result of digitalization and cybersecurity. *The Business and Management Review*. 11.
- Mroz, J. E., Allen, J. A., Verhoeven, D. C., & Shuffler, M. L. (2018). Do We Really Need Another Meeting? The Science of Workplace Meetings. *Current Directions in Psychological Science*. 27(6), 484–491. <https://doi-org.proxy.library.uu.nl/10.1177/0963721418776307>
- Mulang, H. (2022). Analysis of The Effect of Organizational Justice, Work-life Balance on Employee Engagement and Turnover Intention. *Golden Ratio of Human Resource Management*. 2(2), 86 - 97. <https://doi.org/10.52970/grhrm.v2i2.169>
- Narayan, A., Murty, R. N., Rajath, B. D., & Kominers, Sc. D. (2021). The Endless Digital Workday. *Harvard Business Review*.
- Nederland Digital (2021). *The Dutch Digitalization Strategy 2021*.
- Neumayr, T., Saatçi, B., Rintel, S., Klokmoose, C., & Augstein, M. (2021). What was Hybrid? A Systematic Review of Hybrid Collaboration and Meetings Research. <https://doi.org/10.48550/arXiv.2111.06172>
- Nielsen, P., Boye, S. & Holten, A. L. (2018). Are Transformational and Transactional Types of Leadership Compatible? A Two-Wave Study of Employee Motivation. *Public Administration*. 97. <https://doi-org.proxy.library.uu.nl/10.1111/padm.12574>
- O'Driscoll, M., Brough, P., Timms, C. & Sawang, S. (2010). Engagement with information and communication technology and psychological well-being. *Research in Occupational Stress and Well Being*. 8. [http://dx.doi.org/10.1108/S1479-3555\(2010\)0000008010](http://dx.doi.org/10.1108/S1479-3555(2010)0000008010)

- Oeppen, R.S, Shaw, G. & Brennan, P.A (2020). Human factors recognition at virtual meetings and video conferencing: how to get the best performance from yourself and others. *Br. J. Oral Maxillofac Surg.* 58, 643-646. <https://doi.org/10.1016/j.bjoms.2020.04.046>
- OECD (2019). Regulatory effectiveness in the era of digitalization.
- Olafsen, A. H., Halvari, H. & Frølund, C. W. (2021). The Basic Psychological Need Satisfaction and Need Frustration at Work Scale: A Validation Study. *Front. Psychol.* <https://doi.org/10.3389/fpsyg.2021.697306>
- Olson, G. & Olson, J. (2003). Mitigating the effects of distance on collaborative intellectual work, *Economics of Innovation and New Technology.* 12(1), 27-42. 10.1080/10438590303117
- Palumbo, R., Casprini, E. & Montera, R. (2022). What makes work smart in the public sector? Insights from a bibliometric analysis and interpretive literature review. *Public Management Review.* 1-26. <https://doi-org.proxy.library.uu.nl/10.1080/14783363.2022.2055458>
- Park, J. (2007). *Work Stress And Job Performance.*
- Paunov, C. & Planes-Satorra, S. (2019). How are digital technologies changing innovation?: Evidence from agriculture, the automotive industry and retail. *OECD Science, Technology and Industry Policy Papers*, OECD Publishing, Paris. 74 <https://doi.org/10.1787/67bbcafe-en>.
- Peiffer, H., Schmidt, I., Ellwart, T., & Ulfert, A.-S. (2020). Digital Competences in the Workplace: Theory, Terminology, and Training. In E. Wuttke, J. Seifried, & H. Niegemann (Eds.), *Vocational Education and Training in the Age of Digitization: Challenges and Opportunities.* 157–182. <https://doi.org/10.2307/j.ctv18dvv1c.11>
- Pinzaru, F. & Stoica, V. (2022). Virtual Versus Face-to-Face meetings: A study Regarding the Perceptions of the Romanian Managers during and after the COVID-19 Pandemic. *Proceedings of the International Conference on Business Excellence.* 16. 1306-1315. <http://dx.doi.org/10.2478/picbe-2022-0119>
- Pollitzer, E. (2018). Creating a better future: Four scenarios for how digital technologies could change the world. *Journal of International Affairs.* 72(1), 75–90. <https://www.jstor.org/stable/26588344>
- Ponto, J. (2015). Understanding and Evaluating Survey Research. *Journal of the advanced practitioner in oncology.* 6. 168-171.

- Porpiglia, F., Checcucci, E., Autorino, R., Amparore, D., Cooperberg, M.R. Ficarra, V. & Novara, G. (2020). Traditional and virtual congress meetings during the COVID-19 pandemic and the post-COVID-19 era: is it time to change the paradigm? *Eur Urol.* 78, 301-303. <https://doi.org/10.1016/j.eururo.2020.04.018>
- Pouliakas, K. (2020). Working at Home in Greece: Unexplored Potential at Times of Social Distancing? Institute of Labor Economics. <https://dx.doi.org/10.2139/ssrn.3636637>
- Qin, Y. S., & Men, L. R. (2022). Exploring the Impact of Internal Communication on Employee Psychological Well-Being During the COVID-19 Pandemic: The Mediating Role of Employee Organizational Trust. *International Journal of Business Communication.* <https://doi-org.proxy.library.uu.nl/10.1177/23294884221081838>
- Rahmadani, V.G., Schaufeli, W.B., Ivanova, T.Y., Osin, E.N. (2019). Basic psychological need satisfaction mediates the relationship between engaging leadership and work engagement: A cross-national study. *Human Resource Development Quarterly.* 30, 453–471. <https://doi-org.proxy.library.uu.nl/10.1002/hrdq.21366>
- Reed, K.M. & Allen, J. A. (2022). Suddenly hybrid: Managing the meeting. Wiley, Hoboken, NJ.
- Richter, A. (2020). Locked-down digital work. *International Journal of Information Management.* 55. <https://doi.org/10.1016/j.ijinfomgt.2020.102157>
- Rogelberg, S. G., Scott, C. W., Agypt, B., Williams, J., Kello, J. E., McCausland, T., & Olien, J. L. (2014). Lateness to meetings: Examination of an unexplored temporal phenomenon. *European Journal of Work and Organizational Psychology* 23(3), 323–341. <http://dx.doi.org/10.1080/1359432X.2012.745988>
- Roos, G., Oláh, J., Ingle, R., Kobayashi, R. & Feldt, M. (2020). Online conferences – Towards a new (virtual) reality. *Computational and Theoretical Chemistry.* 1189. <https://doi.org/10.1016/j.comptc.2020.112975>
- Ryan R. M. & Deci E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology.* 52 141-166.
- Saatçi, B., Rädle, R., Rintel, S., O'Hara, K. & Nylandsted Klokmoose, C. (2019). Hybrid Meetings in the Modern Workplace: Stories of Success and Failure. *International Conference on Collaboration and Technology, Collaboration Technologies, and Social Computing.* 45–61.
- Sardeshmukh S. R., Sharma D., Golden T. D. (2012). Impact of telework on exhaustion and job engagement: A job demands and job resources model. *New Technology, Work and*

- Employment. 27(3), 193–207. <https://doi-org.proxy.library.uu.nl/10.1111/j.1468-005X.2012.00284.x>
- Schaufeli, W.B., Salanova, M., González-romá, V. & Bakker A.B. (2002). The Measurement of Engagement and Burnout: A Two Sample Confirmatory Factor Analytic Approach. *Journal of Happiness Studies*. 3, 71–92 <https://doi-org.proxy.library.uu.nl/10.1023/A:1015630930326>
- Schaufeli, W. & Bakker, A. (2004a). Job Demands, Job Resources, and Their Relationship with Burnout and Engagement: A Multi-Sample Study. *Journal of Organizational Behavior*. 25(3), 293-315. <https://doi.org/10.1002/job.248>
- Schaufeli, W. & Bakker, A. (2004b). Utrecht Work Engagement Scale. Occupational Health Psychology Unit Utrecht University. 4-44.
- Setia, M. S. (2016). Methodology Series Module 3: Cross-sectional Studies. *Indian J Dermatol*. 10.4103/0019-5154.182410.
- Sharp, M. (2022). Revisiting digital inclusion: A survey of theory, measurement, and recent research.
- Shirmohammadi, M., Au W.Ch. & Beigi, M. (2022). Remote work and work-life balance: Lessons learned from the covid-19 pandemic and suggestions for HRD practitioners. *Human Resource Development International*. 25(2), 163-181. <https://doi.org/10.1080/13678868.2022.2047380>
- Shockley, K. M., Gabriel, A. S., Robertson, D., Rosen, C. C., Chawla, N., Ganster, M. L. & Ezerins, M. E. (2021). The Fatiguing Effects of Camera Use in Virtual Meetings. *Journal of Applied Psychology*. 106(8), 1137-1155. <https://doi-org.proxy.library.uu.nl/10.1037/apl0000948>
- Sinclair, R., Allen, T., Barber, L., Bergman, M., Britt, T., Butler, A., Ford, M., Hammer, L., Kath, L., Probst, T., & Yuan, Z. (2020). Occupational health science in the time of COVID-19: Now more than ever. *Occupational Health Science*, 4(1–2), 1–22. <https://doi.org/10.1001/jamaoncol.2018.2706>
- Škerlavaj, M. (2022). Post-Heroic Leadership in the Context of Humanizing Hybrid Work. In: *Post-Heroic Leadership*. Palgrave Macmillan, Cham. [https://doi-org.proxy.library.uu.nl/10.1007/978-3-030-90820-1\\_3](https://doi-org.proxy.library.uu.nl/10.1007/978-3-030-90820-1_3)
- Smite, D., Moe, N. B, Hildrum, J., Gonzalez-Huerta, J. & Mendez, D. (2023). Work-from-home is here to stay: Call for flexibility in post-pandemic work policies. *Journal of Systems and Software*. 195. <https://doi.org/10.48550/arXiv.2203.11136>



- Standaert, W., Muylle, S., & Basu, A. (2021). How shall we meet? Understanding the importance of meeting mode capabilities for different meeting objectives. *Information & Management*. 58(1). <https://doi.org/10.1016/j.im.2020.103393>
- Standaert, W., Muylle, S. & Basu, A. (2022). Business meetings in a post-pandemic world: When and how to meet virtually. *Business Horizons*. 65(3). <https://doi.org/10.1016/j.bushor.2021.02.047>
- Standaert, W., Thunus, S. & Schoenaers, F. (2022). Virtual meetings and wellbeing: insights from the COVID-19 pandemic. *Information Technology & People*. <https://doi.org/10.1108/ITP-01-2021-0022>
- Stratton, S. (2021). Population Research: Convenience Sampling Strategies. *Prehospital and Disaster Medicine*, 36(4), 373-374. <https://doi.org/10.1017/S1049023X21000649>
- Syrek, C., Kühnel, J., Vahle-Hinz, T., & de Bloom, J. (2022). Being an accountant, cook, entertainer and teacher-all at the same time: Changes in employees' work and work-related well-being during the coronavirus (COVID-19) pandemic. *International Journal of Psychology*. 57(1), 20–32. <https://doi.org/10.1002/ijop.12761>
- Tabor-Blazewicz, J. (2022). The challenges of HR departments in hybrid work conditions. 691-702. 10.29119/1641-3466.2022.162.38.
- Tremblay, D.G. & Gein, E. (2007). The demand for telework of IT self-employed workers. *The Journal of E-Working*. 1(2), 98-115.
- Uyanık, G.K., & Güler, N. (2013). A Study on Multiple Linear Regression Analysis. *Procedia - Social and Behavioral Sciences*. 106, 234-240.
- Van den Broeck, A., Vansteenkiste, M., De Witte, H., & Lens, W. (2008). Explaining the relationships between job characteristics, burnout, and engagement: The role of basic psychological need satisfaction. *Work & Stress*, 22, 277–294.
- Van den Broeck, A., De Cuyper, N., De Witte, H. & Vansteenkiste, M. (2010). Not all job demands are equal: Differentiating job hindrances and job challenges in the Job Demands–Resources model. *European Journal of Work and Organizational Psychology*. 19(6), 735-759, DOI: [10.1080/13594320903223839](https://doi.org/10.1080/13594320903223839)
- Van den Broeck, A., Vansteenkiste, M., De Witte, H., Soenens, B., & Lens, W. (2011). Capturing autonomy, competence, and relatedness at work: construction and initial validation of the work-related basic need satisfaction scale. *Journal of Occupational and Organizational Psychology*. 83, 981–1002. <https://doi.org/10.1348/096317909X481382>

- Wang, B., Liu, Y., Qian, J., & Parker, S. K. (2021). Achieving effective remote working during the COVID-19 pandemic: A work design perspective. *Applied psychology*, 7(1), 16-59. <https://doi.org/10.1111/apps.12290>
- Warr P. (1987). *Work, unemployment, and mental health*. Oxford University Press.
- Watkins, M. W. (2018). Exploratory factor analysis: A guide to best practice. *Journal of Black Psychology*. 44(3), 219-246.
- White, M. (2014). The management of virtual teams and virtual meetings. *Business Information Review*. 31(2), 111–117. <https://doi.org/10.1177/0266382114540979>
- Wontorczyk, A., & Rożnowski, B. (2022). Remote, Hybrid, and On-Site Work during the SARS-CoV-2 Pandemic and the Consequences for Stress and Work Engagement. *International Journal of Environmental Research and Public Health*. 19(4). <https://doi.org/10.3390/ijerph19042400>
- Wu, J., Rajesh, A., Huang, YN., Chhugani, K., Acharya, R., Peng, K., Johnson, R. D., Fiscutean, A., Robles-Espinoza, C. D., De La Vega, F. M., Bao, R. & Mangul, S. (2022). Virtual meetings promise to eliminate geographical and administrative barriers and increase accessibility, diversity, and inclusivity. *Nat Biotechnol*. 40, 133–137.
- Yoerger, M., Crowe, J. & Allen, J. A. (2015). Participate or Else!: The Effect of Participation in Decision-Making in Meetings on Employee Engagement. *Consulting Psychology Journal: Practice and Research*. 67(1), 65-80. <https://psycnet.apa.org/doi/10.1037/cpb0000031>
- Young, T. (2015). Questionnaires and Surveys. In book: *Research Methods in Intercultural Communication: A Practical Guide*. 163-180 <http://dx.doi.org/10.1002/9781119166283.ch11>
- Zeuge, A., Lemmer, K., Klesel, M., Kordyaka, B., Jahn, K. & Niehaves, B. (2022). To be or not to be stressed: Designing autonomy to reduce stress at work. 1-15. <http://dx.doi.org/10.3233/WOR-220177>

## **Appendix Questionnaire**

Dear Participant,

We would like to invite you to participate in the research survey on the impact of Hybrid Meetings on Employee Well-being: Stress and Work Engagement in the Post-Pandemic Era: a comparative study of Greece and the Netherlands. The purpose of this study is to explore

the impact of hybrid meetings on employee well-being, stress, and work engagement in the post-pandemic era and how digitalization in organizations of both countries has affected the potential impact on employee well-being.

Hi! I am Milena Stoungioti, I am from Greece, and I am a master's student at Utrecht University, currently completing my studies in Strategic Human Resources Management. After coming to the Netherlands for my studies, I detected major differences between the Greek and Dutch labor market. As a result, I became extremely interested in investigating the different approaches organizations took to adapt to the new socioeconomic reality that was created after Covid-19.

The survey will take approximately 10 minutes to complete.

General information about the Research Study:

This research study aims to research and evaluate how hybrid meetings affect the well-being of employees that attend them and the role of digitalization in organizations to simplify their execution and aid in reducing stress and increase work engagement. This research study takes place in the context of the researcher's thesis for the Strategic Human Resource Management master's at Utrecht University.

Benefits of Participating in this Research Study:

With your contribution to this research study, you may provide useful insights into how organizations that facilitate hybrid meetings can improve their employees' well-being.

Risks of Participating in this Research Study:

There are no known risks to being part of this research study.

Anonymity:

This research ensures the anonymity of the participants by not collecting any personally identifying information such as names, phone numbers, email addresses, IP addresses, physical characteristics, photos, and videos. The results of the research will be anonymous, the data obtained by you will be combined with data from others and the results will not include your name or any other information that would personally identify you in any way.

Confidentiality of records:

All survey data will be kept confidential to the extent of the law. Authorized research personnel, the master's student conducting the research, and the supervising professor, may inspect the records from this research project.

Volunteering to be part of this Research Study:

Your decision to participate in this research is completely voluntary. You are free to participate in this research study or withdraw at any given time.

If you have any questions about this research, you can contact me:

[e.m.stoungioti@students.uu.nl](mailto:e.m.stoungioti@students.uu.nl)

The following information is being presented to help you decide whether you want to take part in this survey. You qualify to participate in the survey in the following cases:

- You are over 18 years old.
- You work either in Greece or the Netherlands.
- You participate in hybrid meetings of the company/organization that you are currently working at. A meeting is hybrid when some people attend from the same room in the workplace, and some are linked in remotely. The result is that some people are face-to-face in a meeting room, while others are connected via telephone, video conference, or both.

Consent to take part in this Research Study:

By clicking "I AGREE TO PARTICIPATE" below you agree that:

- a) You have fully read the consent form describing the aim of this research project.
- b) You understand that you are asked to participate in the research project outlined in this form, under the conditions indicated in it.

**1. What is your gender?**

- Female
- Male
- Non-binary/third gender

- Prefer not to say

**2. What is your age?**

- 18-24
- 25-34
- 35-44
- 45-54
- 55-64

These are some more demographic questions about level of education, employment status, and the industry that you are employed in.

**3. What is your highest level of education?**

- High School Diploma
- College degree
- Bachelor
- Master
- Doctorate
- Other

**4. What is your current employment status?**

- Employed full-time
- Employed part-time
- Unemployed
- Retired

**5. In what business/industry or services do you work? (If in the previous question, you answered unemployed or retired, please choose your last job field)**

- Agriculture, Forestry & Fishing
- Services
- Public Administration
- Finance, Insurance or Real Estate

- Retail Trade
- Wholesale Trade
- Transportation & Public Utilities
- Manufacturing
- Construction
- Mining
- Other

The next questions involve hybrid meetings. A meeting is hybrid when some people attend a meeting from the same room in the workplace, and some are linked in remotely. I would like you to review it from the side of when working and joining meetings remotely.

**6. Have ever a hybrid meeting tin the last six months?**

- Yes
- No

**7. How often in your workplace...**

- i. Do you attend hybrid meetings?
- ii. Do you use online platforms as Microsoft Teams, Zoom and Skype to conduct meetings at work?
- iii. Do other employees attend hybrid meetings?
- iv. Do other employees join meetings remotely from home or another place of their choice?
  - Less than once per week
  - Once per week
  - 2-3 per week
  - 4-5 per week
  - More than 5 per week

For the next questions I would like you to freely point what best describes the level you agree with each statement when participating in hybrid meetings. There is no correct or wrong answer, so you can choose what best fits your opinion.

**8. When I am attending a meeting virtually...**

- i. I forget everything else around me
- ii. I am immersed in the conversation
- iii. Time flies quickly
- iv. I am engaged
- v. I can use my judgment when solving work-related problems
- vi. I like the autonomy that I am given
- vii. I feel reassured about what I have to do to complete my tasks
- viii. I can show how capable I am
- ix. I find myself learning new things
- x. I can freely express my ideas and opinions

- Strongly Disagree
- Disagree
- Somewhat disagree
- Neither agree or disagree
- Somewhat agree
- Agree
- Strongly Agree

### **9. When I participate in hybrid meetings...**

- i. I am hesitant to interrupt someone who's speaking
  - ii. I am not able to see the faces of other participants clearly
  - iii. I am not able to understand who is talking
  - iv. There is audio/echo distortion
  - v. I am not heard clearly
  - vi. I am not able to see the presentation
  - vii. I have internet connection problems
  - viii. My computer is very slow and outdated
  - ix. Hybrid meetings take too much time that I could use to complete other job tasks
- Strongly Disagree
  - Disagree
  - Somewhat disagree
  - Neither agree or disagree
  - Somewhat agree

- Agree
- Strongly Agree

**10. Which of the following occurrences happened to you when preparing for a hybrid meeting?**

- Trying to arrange a meeting that fits everyone's schedule
- Other work responsibilities do not allow me to join multiple meetings during a day
- Inability to easily share content (files, screens, video) in a virtual meeting room
- None of the above have caused me stress

**11. What of the following do you believe affect your efficiency when attending meetings away from the office premises?**

- I don't have a quiet room to work in
- I am frequently interrupted by family or kids
- I don't have an adequate internet connection
- I don't have adequate equipment
- My job involves many tasks that cannot be done remotely
- None of the above have affected me

The next question is about expressing your opinion about what you experience after a hybrid meeting. Feel free to answer with whatever best describes your opinion.

**12. After a meeting...**

- i. I need some time to relax and process the material that was discussed before moving on to the next task
  - ii. I feel tired after looking for prolonged periods of time at the screen
  - iii. I feel stressed
  - iv. I feel my body sore or in pain after prolonged periods of sitting
  - v. I feel reassured about what I have to do to complete my tasks
  - vi. At work, I am bursting with energy
  - vii. It is unclear to me how I should proceed with my work tasks
  - viii. I feel exhausted and need some time to rest
- Strongly Disagree



- Disagree
- Somewhat disagree
- Neither agree or disagree
- Somewhat agree
- Agree
- Strongly Agree

The next questions are about hybrid meetings and the work environment. There are no correct or wrong questions, we just want to know your opinion on organizational support and the relationships with other colleagues and supervisors. Your answers will not be shared, so you can express yourself freely.

**13. To what extent would you say that...**

- i. Hybrid meetings help me stay in contact with my colleagues and supervisors
  - ii. I can trust people from my work environment
  - iii. I feel competent in my skills
  - iv. I feel understood by my colleagues and supervisors
  - v. I get along with my colleagues
  - vi. I can depend on my team members with work-related issues during a hybrid meeting
  - vii. I can relate to people from my work environment
  - viii. I am open to asking for help during a meeting
- Strongly Disagree
  - Disagree
  - Somewhat disagree
  - Neither agree or disagree
  - Somewhat agree
  - Agree
  - Strongly Agree

**14. To what extent would you say that...**

- i. At hybrid meetings, I feel strong and vigorous
- ii. I am a good fit for the job that I am doing
- iii. I feel happy when I am working intensely

- iv. My job requires that I learn new things
- v. At work, they provide me with feedback about how well I am performing
- vi. I often talk about work-related issues with my manager/supervisor through a screen
  - Strongly Disagree
  - Disagree
  - Somewhat disagree
  - Neither agree nor disagree
  - Somewhat agree
  - Agree
  - Strongly Agree

The next questions are about technological advancement in your workplace and how it affects the process of hybrid meetings. Please choose what better describes your opinion.

**15. How technologically advanced would you describe the organization you work at?**

- i. Far below average
- ii. Somewhat below average
- iii. Average
- iv. Somewhat above average
- v. Far above average

**16. How much do you agree with these statements?**

- i. Most of the tasks at my job position are completed on computers
- ii. The organization has supported employees to digitally adapt to hybrid meetings
- iii. The computers in my organization use the latest technological infrastructures to support the job that I do
- iv. My workplace has integrated digital tools and platforms for hybrid meetings
- v. I was given by the organization a work laptop and a set of headphones to use In hybrid meetings
- vi. The digital advancements in the organization have helped with increasing the efficiency of the employees
- vii. The organization has given training to the employees on how to utilize online platforms and devices for hybrid meetings

- Strongly Disagree
- Disagree
- Somewhat disagree
- Neither agree or disagree
- Somewhat agree
- Agree
- Strongly Agree

Thank you for your time spent taking this survey.

## Tables

**Table 11. Regression analysis with Basic Need Satisfaction, Hybrid Meetings, and the dependent variable of Stress**

	Models							
	1		2		3		4	
	B	$\beta$ (SE)	B	$\beta$ (SE)	B	$\beta$ (SE)	B	$\beta$ (SE)
<b>Variables</b>								
Male	-1.023	-.122 (.701)	-1.057	-.126	-.960	-.115	-.921	-.110 (.693)
Female	1.910	.077 (2.133)	1.960	.079	1.847	.074	1.795	.072 (2.114)
18-24	1.549	.164 (.828)	1.594	.169	1.537	.163	1.481	.157 (.821)
35-44	.064	.006 (.970)	.110	.010	.411	.036	.296	.026 (.970)
45-54	1.197	.096 (1.087)	1.257	.100	1.314	.105	1.197	.097 (1.050)
55-64	-1.602	-.070 (1.854)	-1.506	-.066	-1.728	-.076	-1.834	-.080 (1.841)

**Table 11 continued.**

	<b>Models</b>							
	<b>1</b>		<b>2</b>		<b>3</b>		<b>4</b>	
	<b>B</b>	<b>B (SE)</b>	<b>B</b>	<b><math>\beta</math> (SE)</b>	<b>B</b>	<b><math>\beta</math> (SE)</b>	<b>B</b>	<b><math>\beta</math> (SE)</b>
<b>Variables</b>								
High School	-0.745	-0.050 (1.268)	-0.683	-0.046 (.1270)	-0.705	-0.048 (1.258)	-0.788	-0.053 (1.256)
College	-1.144	-0.136 (.774)	-1.312	-0.156 (.797)	-1.275	-0.152 (.790)	-1.046	-0.125 (.767)
Master	-2.936	-0.215 (1.777)	-2.859	-0.209 (1.181)	-2.675	-0.196 (1.174)	-2.808	-0.205 (1.168)
Doctorate	-3.388	-0.198 (1.503)	-3.595	-0.210 (1.521)	-3.868	-0.226 (1.513)	-3.522	-0.206 (1.486)
Other	3.064	0.078 (3.097)	3.458	0.089 (3.129)	4.270	0.109 (3.127)	3.589	0.092 (3.083)
Employed Full-time	-1.204	-0.130 (.888)	-1.210	-0.131 (.888)	-1.309	-0.141 (.881)	-1.291	-0.139 (.879)
Unemployed	1.580	-0.033 (1.322)	-0.516	-0.038 (1.325)	-1.105	-0.081 (1.346)	-0.919	-0.067 (1.337)
Agriculture, Forestry & Fishing	1.580	0.063 (2.001)	1.573	0.063 (2.003)	1.095	0.044 (1.998)	1.200	0.048 (1.983)

**Table 11 continued.**

Variables	Models							
	1		2		3		4	
	B	$\beta$ (SE)	B	$\beta$ (SE)	B	$\beta$ (SE)	B	$\beta$ (SE)
Public Administration	1.662	.109 (1.335)	1.613	.105 (1.337)	1.398	.091 (1.329)	1.513	.099 (1.317)
Finance, Insurance, Real Estate	-1.709	-.139 (1.172)	-1.742	-.142 (1.174)	-2.019	-.164 (1.171)	-1.913	-.156 (1.155)
Retail Trade	-.088	-.006 (1.252)	-.041	-.003 (1.254)	-.511	-.037 (1.265)	-.488	-.036 (1.249)
Wholesale Trade	-1.103	-.091 (1.170)	-1.301	-.108 (1.191)	-1.227	-.102 (1.180)	-.942	-.078 (1.151)
Transportation, Public Utilities	-.033	-.001 (1.951)	-.069	-.003 (1.953)	-.660	-.029 (1.958)	-.502	-.022 (1.946)
Manufacturing	1.194	.043 (2.231)	1.115	.040 (2.234)	.678	.024 (2.224)	.870	.031 (2.214)
Construction	2.539	.111 (1.957)	2.819	.124 (1.983)	2.175	.095 (1.991)	1.886	.083 (1.974)
Other	-1.037	-.107 (.964)	-1.003	-.103 (.966)	-.992	-.102 (.957)	-1.027	-.106 (.942)
Hybrid Meetings			.062	.075 (.068)	.092	.113 (.069)		
Basic Need Satisfaction					-.100*	-.165 (.051)	-.114*	-.193 (.047)
$R^2$	.210	.215			.234		.034	
Adjusted $R^2$	.094	.093			.110		.102	
F	1.815	1.769			1.889		2.970	
Sig.	.020	.023			.015		.012	

*N=196 \*Correlation is significant at the 0.05 level (2-tailed). \*\*Correlation is significant at the 0.01 level (2-tailed).*

**Table 12. Regression analysis with Basic Need Satisfaction, Hybrid Meetings and the dependent variable of Engagement**

	Models							
	1		2		3		4	
	B	$\beta$ (SE)	B	$\beta$ (SE)	B	$\beta$ (SE)	B	$\beta$ (SE)
<b>Variables</b>								
Male	.212	.039 (.466)	.183	.033 (.467)	.111	.020 (.461)	.172	.031 (.459)
Female	-.251	-.015 (.1425)	-.224	-.014 (1.424)	-.132	-.008 (1.405)	-.116	-.007 (1.404)
18-24	.991	.161 (.552)	1.024	.166 (.552)	1.069	.173 (.545)	1.055	.170 (.544)
35-44	.474	.063 (.648)	.518	.069 (.649)	.287	.038 (.648)	.222	.029 (.644)
45-54	.304	.037 (.723)	.353	.043 (.723)	.310	.038 (.714)	.093	.012 (.694)
55-64	1.133	.076 (1.233)	1.214	.082 (1.234)	1.381	.093 (1.220)	1.319	.088 (1.217)
High School	-1.071	-.107 (.867)	-.998	-.100 (.869)	-.991	-.099 (.857)	-1.000	-.100 (.854)
College	-.209	-.038 (.515)	-.349	-.063 (.530)	-.376	-.068 (.523)	-.351	-.064 (.508)

**Table 12 continued.**

	Models							
	1		2		3		4	
	B	$\beta$ (SE)	B	$\beta$ (SE)	B	$\beta$ (SE)	B	$\beta$ (SE)
<b>Variables</b>								
Master	-.121	-.014 (.783)	-.059	-.007 (.784)	-.199	-.022 (.776)	-.204	-.023 (.772)
Doctorate	-.346	-.031 (.999)	-.512	-.046 (1.010)	-.305	-.027 (1.000)	-.116	-.010 (.983)
Other	1.265	.050 (2.060)	1.578	.062 (2.078)	.965	.038 (2.068)	.797	.031 (2.040)
Employed Full-time	-.576	-.095 (.597)	-.590	-.097 (.597)	-.510	-.084 (.590)	-.536	-.088 (.588)
Unemployed	-2.721	-.305 (.881)	-2.784	-.312 (.882)	-2.335	-.262 (.893)	-2.303	-.257 (.886)
Agriculture, Forestry & Fishing	.302	.019 (1.330)	.295	.018 (1.329)	.657	.040 (1.321)	.864	.053 (1.311)
Public Administration	-.450	-.045 (.887)	-.489	-.049 (.887)	-.325	-.033 (.878)	-.179	-.018 (.871)



**Table 12 continued.**

	<b>Models</b>							
	<b>1</b>		<b>2</b>		<b>3</b>		<b>4</b>	
	<b>B</b>	<b>β (SE)</b>	<b>B</b>	<b>β (SE)</b>	<b>B</b>	<b>β (SE)</b>	<b>B</b>	<b>β (SE)</b>
<b>Variables</b>								
Finance, Insurance, Real Estate	-.061	-.007 (.792)	-.073	-.009 (.792)	.130	.016 (.786)	.289	.035 (.776)
Retail Trade	-1.283	-.144 (.832)	-1.244	-.139 (.833)	-.888	-.099 (.836)	-.732	-.082 (.826)
Wholesale Trade	1.455	.185 (.778)	1.294	.164 (.791)	1.238	.157 (.780)	1.444	.182 (.761)
Transportation, Public Utilities	-1.141	-.077 (1.298)	-1.165	-.078 (1.297)	-.720	-.048 (1.295)	-.542	-.036 (1.287)
Manufacturing	-1.042	-.057 (1.484)	-1.114	-.061 (1.485)	-.779	-.043 (1.472)	-.614	-.034 (1.465)
Construction	-1.774	-.119 (1.301)	-1.544	-.104 (1.316)	-1.058	-.071 (1.316)	-1.063	-.071 (1.305)
Other	-.214	-.034 (.641)	-.185	-.029 (.641)	-.195	-.031 (.632)	-.084	-.013 (.623)
Hybrid Meetings			.050	.094 (.045)	.027	.051 (.046)		
Basic Need Satisfaction					.076*	.067 (.030)	.117*	
<i>R</i> <sup>2</sup>	.186		.193		.220		.097	
Adjusted <i>R</i> <sup>2</sup>	.066		.067		.092		.077	
F	1.549		1.538		1.725		9.104	
Sig.	.066		.067		.027		0.54	

*N*=196 \*Correlation is significant at the 0.05 level (2-tailed). \*\*Correlation is significant at the 0.01 level (2-tailed).

**Table 13. Regression analysis with a moderating effect of digitalization on the relationship between the independent variable of Hybrid Meetings and the dependent variable of Stress**

Variables	Models							
	1		2		3		4	
	B	$\beta$ (SE)	B	$\beta$ (SE)	B	$\beta$ (SE)	B	$\beta$ (SE)
Male	2.871	.116 (2.080)	2.945	.119 (2.985)	.887	.101 (2.042)	2.490	.101 (2.050)
Female	.919	.111 (.829)	.953	.115 (.703)	2.494	.107 (.687)	.890	.107 (.690)
18-24	1.412	.150 (.829)	1.456	.154 (.832)	1.810	.192 (.822)	1.818	.193 (.829)
35-44	.047	.004 (.966)	.086	.008 (.969)	.129	.011 (.946)	.133	.012 (.950)
45-54	1.214	.098 (1.082)	1.263	.102 (1.086)	1.322	.106 (1.060)	1.340	.108 (1.080)
55-64	-1.628	-.072 (1.846)	-1.546	-.068 (1.852)	-1.021	-.045 (1.817)	-.994	-.044 (1.846)

**Table 13 continued.**

	<b>Models</b>							
	<b>1</b>		<b>2</b>		<b>3</b>		<b>4</b>	
	<b>B</b>	<b>(SE)</b>	<b>B</b>	<b>(SE)</b>	<b>B</b>	<b>(SE)</b>	<b>B</b>	<b>(SE)</b>
<b>Variables</b>								
Agriculture/Forestry/Fishing	1.576	.064 (1.992)	1.571	.064 (1.995)	1.374	.056 (1.949)	1.377	.056 (1.956)
Public Administration	1.710	.113 (1.329)	1.667	.110 (1.332)	1.006	.066 (1.321)	1.014	.067 (1.329)
Finance, Insurance, Real Estate	-1.713	-.141 (1.167)	-1.741	-.143 (1.169)	-1.912	-.157 (1.143)	-1.914	-.157 (1.147)
Retail Trade	-.078	-.006 (1.247)	-.040	-.003 (1.250)	-.752	-.056 (1.245)	-.765	-.056 (1.256)
Wholesale Trade	-1.056	-.088 (1.165)	-1.223	-.102 (1.188)	-1.272	-.106 (1.901)	-1.273	-.106 (1.164)
Transportation	-.062	-.003 (1.942)	-.090	-.004 (1.946)	-.309	-.014 (2.174)	-.309	-.014 (1.908)
Manufacturing	1.142	.042 (2.221)	1.079	.039 (2.226)	1.213	.044 (2.174)	1.210	.044 (2.181)
Construction	2.421	.163 (.579)	2.661	.118 (1.978)	1.834	.081 (1.953)	1.816	.080 (1.969)
Other	-1.171	-.120 (.964)	-1.136	-.117 (.966)	-1.208	-.124 (.944)	-1.208	-.124 (.947)
High School Diploma	.440	.030 (1.234)	.631	.043 (1.261)	.318	.022 (1.236)	.315	.021 (1.241)
College	-1.820	-.134 (1.151)	-1.614	-.119 (1.185)	-2.190	-.162 (1.174)	-2.201	-.162 (1.185)
Bachelor	1.005	.110 (.776)	1.153	.126 (.801)	.921	.101 (.787)	.919	.101 (.790)
Doctorate	-2.307	-.136 (1.487)	-2.336	-.138 (1.489)	-3.110	-.183 (1.479)	-3.101	-.183 (1.487)
Other	4.190	.108 (3.043)	4.659	.120 (3.110)	5.302	.137 (3.045)	5.321	.138 (3.062)
Employed full-time	-1.299	-.141 (.886)	-1.298	-.141 (.887)	-1.086	-.118 (.869)	-1.096	-.119 (.879)
Unemployed	-.436	-.032 (1.316)	-.494	-.036 (1.320)	-.785	-.058 (1.293)	-.782	-.058 (1.298)

**Table 13 continued.**

	Models							
	1		2		3		4	
	B	$\beta$ (SE)	B	$\beta$ (SE)	B	$\beta$ (SE)	B	$\beta$ (SE)
<b>Variables</b>								
Hybrid Meetings			.051	.063 (.068)	.135	.167 (.073)	.139	.174 (.957)
Digitalization					-.128**	-.260 (.045)	-.222**	-.211 (.226)
HM x Digitalization							-.001	-.016 (.055)
$R^2$	.208		.211		.253		.253	
Adjusted $R^2$	.091		.088		.131		.125	
F	1.778		1.721		2.072		1.976	
Sig.	.024		.029		.005		0.07	

*N=196 \*Correlation is significant at the 0.05 level (2-tailed). \*\*Correlation is significant at the 0.01 level (2-tailed).*

**Table 14. Regression analysis with a moderating effect of digitalization on the relationship between the independent variable of Hybrid Meetings and the dependent variable of Engagement**

	Models							
	1		2		3		4	
	B	$\beta$ (SE)	B	$\beta$ (SE)	B	$\beta$ (SE)	B	$\beta$ (SE)
<b>Variables</b>								
Male	.255	.047 (.468)	.223	.041 (.469)	.184	.034 (.460)	.193	.035 (.462)
Female	-.236	-.015 (1.425)	-.213	-.013 (1.425)	.045	.003 (1.400)	.064	.004 (1.404)
18-24	.934	.151 (.555)	.970	.157 (.556)	.753	.121 (.551)	.730	.118 (.556)
35-44	.468	.062 (.648)	.509	.068 (.649)	.474	.063 (.636)	.465	.062 (.062)
45-54	.311	.038 (.723)	.355	.044 (.724)	.318	.039 (.709)	.271	.033 (.722)
55-64	1.122	.076 (1.233)	1.198	.081 (1.235)	.865	.058 (1.216)	.791	.053 (1.234)
Agriculture/Forestry/Fishing	.301	.019 (1.331)	.294	.018 (1.331)	.420	.026 (1.304)	.411	.025 (1.308)
Public Administration	-.430	-.043 (.888)	-.468	-.047 (.889)	-.053	-.005 (.884)	-.077	-.008 (.889)
Finances	-.060	-.007 (.793)	-.071	-.009 (.793)	.019	.002 (.777)	.028	.003 (.780)
Retail Trade	-1.279	-.144 (.883)	-1.243	-.140 (.833)	-.797	-.090 (.833)	-.763	-.086 (.840)
Wholesale Trade	1.475	.188 (.778)	1.324	.169 (.792)	1.355	.172 (.776)	1.356	.173 (.778)

**Table 14 continued.**

	<b>Models</b>							
	<b>1</b>		<b>2</b>		<b>3</b>		<b>4</b>	
	<b>B</b>	<b>(SE)</b>	<b>B</b>	<b>(SE)</b>	<b>B</b>	<b>(SE)</b>	<b>B</b>	<b>(SE)</b>
<b>Variables</b>								
Transportation	-1.152	-.078 (1.298)	-1.173	-.079 (1.298)	-1.041	-.070 (1.273)	-1.040	-.070 (1.276)
Manufacturing	-1.065	-.059 (1.485)	-1.129	-.063 (1.486)	-1.204	-.067 (1.456)	-1.198	-.066 (1.460)
Construction	-1.822	-.123 (1.302)	-1.605	-.108 (1.320)	-1.089	-.073 (1.307)	-1.040	-.070 (1.317)
Other	-.269	-.042 (.644)	-.236	-.037 (.645)	-.192	-.030 (.632)	-.193	-.030 (.633)
High School Diploma	-.840	-.084 (.854)	-.646	-.065 (.875)	-.479	-.048 (.859)	-.467	-.047 (.862)
College	.077	.009 (.769)	.264	.030 (.791)	.622	.070 (.786)	.654	.074 (.792)
Bachelor	.152	.025 (.519)	.288	.048 (.535)	.429	.072 (.527)	.436	.073 (.792)
Doctorate	-.162	-.015 (.994)	-.183	-.016 (.994)	.297	.027 (.990)	.274	.025 (.995)
Other	1.466	.058 (2.033)	1.884	.074 (2.074)	1.484	.058 (2.037)	1.432	.056 (2.047)
Employed part-time	.617	.086 (.599)	.625	.087 (.599)	.747	.104 (.588)	.721	.101 (.594)
Unemployed	-2.101	-.236 (.779)	-2.151	-.242 (.780)	-1.838	-.207 (.773)	-1.874	-.211 (.781)
Hybrid Meetings			.046	.087 (.046)	-.006	-.012 (.049)	.241	.454 (.636)
Digitalization					.080*	.249 (.030)	.104*	.322 (.068)
HM x Digitalization							-.002	-.504 (.005)
$R^2$	.185		.190		.229		.229	
Adjusted $R^2$	.063		.064		.102		.096	
F	1.524		1.503		1.802		1.726	
Sig.	.074		.078		.018		0.25	

*N=196 \*Correlation is significant at the 0.05 level (2-tailed). \*\*Correlation is significant at the 0.01 level (2-tailed).*

**Table 15. Regression analysis with a moderating effect of country on the relationship between the independent variable of Hybrid Meetings and the dependent variable of Stress**

	Models							
	1		2		3		4	
	B	$\beta$ (SE)	B	$\beta$ (SE)	B	$\beta$ (SE)	B	$\beta$ (SE)
<b>Variables</b>								
Female	.919	.111 (.701)	.953	.115 (.703)	.887	.107 (.687)	.867	.105 (.694)
Non-Binary	2.871	.116 (2.080)	2.945	.119 (2.085)	2.494	.101 (2.042)	2.485	.101 (2.049)
18-24	1.412	.150 (.829)	1.456	.154 (.832)	1.810	.192 (.822)	1.834	.194 (.831)
35-44	.047	.004 (.966)	.086	.008 (.969)	.129	.011 (.946)	.157	.014 (.956)
45-54	1.214	.098 (1.082)	1.263	.102 (1.086)	1.322	.106 (1.060)	1.342	.108 (1.067)
55-64	-1.628	-.072 (1.846)	-1.546	-.068 (1.852)	-1.021	-.045 (1.817)	-1.019	-.045 (1.823)
Agriculture/Forestry/Fishing	1.576	.064 (1.992)	1.571	.064 (1.995)	1.374	.056 (1.949)	1.396	.057 (1.958)
Public Administration	1.710	.113 (1.329)	1.667	.110 (1.332)	1.006	.066 (1.321)	1.027	.068 (1.329)
Finances, Insurance, Real Estate	-1.713	-.141 (1.167)	-1.741	-.143 (1.169)	-1.912	-.157 (1.143)	-1.872	-.154 (1.160)
Retail Trade	-.078	-.006 (1.247)	-.040	-.003 (1.250)	-.752	-.056 (1.245)	-.729	-.054 (1.253)
Wholesale Trade	-1.056	-.088 (1.165)	-1.223	-.102 (1.188)	-1.272	-.106 (1.160)	-1.279	-.107 (1.164)
Transportation	-.062	-.003 (1.942)	-.090	-.004 (1.946)	-.309	-.014 (1.901)	-.344	-.015 (1.913)
Manufacturing	1.142	.042 (2.221)	1.079	.039 (2.226)	1.213	.044 (2.174)	1.189	.043 (2.183)
Construction	2.421	.107 (1.950)	2.661	.118 (1.978)	1.834	.081 (1.953)	1.818	.080 (1.961)
Other	-1.171	-.120 (.964)	-1.136	.063 (.068)	-1.208	-.124 (.944)	-1.157	-.119 (.972)

**Table 15 continued.**

	<b>Models</b>							
		<b>1</b>		<b>2</b>		<b>3</b>		<b>4</b>
<b>Variables</b>	<b>B</b>	<b>β (SE)</b>	<b>B</b>	<b>β (SE)</b>	<b>B</b>	<b>β (SE)</b>	<b>B</b>	<b>β (SE)</b>
High School Diploma	.440	.030 (1.234)	.631	.043 (1.261)	.318	.022 (1.236)	.304	.021 (1.241)
College	-.1820	-.134 (1.151)	-1.614	-.119 (1.185)	-2.190	-.162 (1.174)	-2.149	-.159 (1.190)
Bachelor	1.005	.110 (.776)	1.153	.126 (.801)	.921	.101 (.787)	.927	.101 (.790)
Doctorate	-2.307	-.136 (1.487)	-2.336	-.138 (1.489)	-3.110	-.183 (1.479)	-3.119	-.184 (1.484)
Other	4.190	.108 (3.043)	4.659	.120 (3.110)	5.302	.137 (3.045)	5.337	.138 (3.059)
Employed full-time	-1.299	-.141 (.886)	-1.298	-.141 (.887)	-1.086	-.118 (.869)	-1.083	-.118 (.872)
Unemployed	-.436	-.032 (1.316)	-.494	-.036 (1.320)	-.785	-.058 (1.293)	-.780	-.058 (1.297)
Hybrid Meetings			.051	.063 (.068)	.135	.167 (.073)	.110	.136 (.127)
Country					-.128*	-.260 (.045)	-.129*	-.261 (.045)
HM x Country							.007	.037 (.028)
R	.208		.211		.253		.253	
Adjusted	.091		.088		.131		.125	
F	1.778		1.721		2.072		1.979	
Sig.	.024		.029		.005		0.007	

*N=196 \*Correlation is significant at the 0.05 level (2-tailed). \*\*Correlation is significant at the 0.01 level (2-tailed).*



**Table 16. Regression analysis with a moderating effect of country on the relationship between the independent variable of Hybrid Meetings and the dependent variable of Engagement**

	Models							
	1		2		3		4	
	B	$\beta$ (SE)	B	$\beta$ (SE)	B	$\beta$ (SE)	B	$\beta$ (SE)
<b>Variables</b>								
Male	.255	.047 (.468)	.223	.041 (.469)	.184	.034 (.460)	.174	.032 (.465)
Female	-.236	-.015 (1.425)	-.213	-.013 (1.425)	.045	.003 (1.400)	.042	.003 (1.404)
18-24	.934	.151 (.555)	.970	.157 (.556)	.753	.121 (.551)	.740	.119 (.557)
35-44	.468	.062 (.648)	.509	.068 (.649)	.474	.063 (.636)	.458	.061 (.644)
45-54	.311	.038 (.723)	.355	.044 (.724)	.318	.039 (.709)	.308	.038 (.714)

**Table 16 continued.**

	<b>Models</b>							
	<b>1</b>		<b>2</b>		<b>3</b>		<b>4</b>	
	<b>B</b>	<b>(SE)</b>	<b>B</b>	<b>(SE)</b>	<b>B</b>	<b>(SE)</b>	<b>B</b>	<b>(SE)</b>
<b>Variables</b>								
55-64	1.122	.076 (1.233)	1.198	.081 (1.235)	.865	.058 (1.216)	.863	.058 (1.220)
Agriculture/Forestry/Fishing	.301	.019 (1.331)	.294	.018 (1.331)	.420	.026 (1.304)	.408	.025 (1.310)
Public Administration	-.430	-.043 (.888)	-.468	-.047 (.889)	-.053	-.005 (.884)	-.064	-.006 (.889)
Finances	-.060	-.007 (.793)	-.071	-.009 (.793)	.019	.002 (.777)	-.005	-.001 (.790)
Retail Trade	-1.279	-.144 (.883)	-1.243	-.140 (.833)	-.797	-.090 (.833)	-.810	-.091 (.839)
Wholesale Trade	1.475	.188 (.778)	1.324	.169 (.792)	1.355	.172 (.776)	1.359	.173 (.779)
Transportation	-1.152	-.078 (1.298)	-1.173	-.079 (1.298)	-1.041	-.070 (1.273)	-1.023	-.069 (1.281)
Manufacturing	-1.065	-.059 (1.485)	-1.129	-.063 (1.486)	-1.204	-.067 (1.456)	-1.190	-.066 (1.463)
Construction	-1.822	-.123 (1.302)	-1.605	-.108 (1.320)	-1.089	-.073 (1.307)	-1.081	-.073 (1.312)
Other	-.269	-.042 (.644)	-.236	-.037 (.645)	-.192	-.030 (.632)	-.220	-.034 (.650)
High School Diploma	-.840	-.084 (.854)	-.646	-.065 (.875)	-.479	-.048 (.859)	-.467	-.048 (.862)
College	.077	.009 (.769)	.264	.030 (.791)	.622	.070 (.786)	.600	.067 (.797)
Bachelor	.152	.025 (.519)	.288	.048 (.535)	.429	.072 (.527)	.426	.071 (.529)
Doctorate	-.162	-.015 (.994)	-.183	-.016 (.994)	.297	.027 (.990)	.302	.027 (.994)
Other	1.466	.058 (2.033)	1.884	.074 (2.074)	1.484	.058 (2.037)	1.466	.058 (2.046)
Employed part-time	.617	.086 (.599)	.625	.087 (.599)	.747	.104 (.588)	.747	.104 (.590)
Unemployed	-2.101	-.236 (.779)	-2.151	-.242 (.780)	-1.838	-.207 (.773)	-1.840	-.207 (.776)

**Table 16 continued.**

	<b>Models</b>							
	<b>1</b>		<b>2</b>		<b>3</b>		<b>3</b>	
	<b>B</b>	<b><math>\beta</math> (SE)</b>	<b>B</b>	<b><math>\beta</math> (SE)</b>	<b>B</b>	<b><math>\beta</math> (SE)</b>	<b>B</b>	<b><math>\beta</math> (SE)</b>
<b>Variables</b>								
Hybrid Meetings			.046	.087 (.046)	-.006	-.012 (.049)	.007	.013 (.085)
Country					.080	.249 (.030)	.081	.250 (.030)
HM x Country							-.004	-.031 (.019)
$R^2$	.185		.190		.229		.229	
Adjusted $R^2$	.063		.064		.102		.096	
F	1.524		1.503		1.802		1.726	
Sig.	.074		.078		.018		0.25	

*N=196 \*Correlation is significant at the 0.05 level (2-tailed). \*\*Correlation is significant at the 0.01 level (2-tailed).*