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Organisational trust and work engagement: The moderating role of e-mail incivility, e-mail overload and e-mail intensity

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Master in Human Resources Management and Organisational Consulting

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November, 2021



BUSINESS SCHOOL

Department of Human Resources and Organisational Behaviour

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Acknowledges

I would like to take this opportunity to thank all those who supported and motivated me during the preparation of this Master's thesis.

First of all, I would like to express my gratitude to Prof. Sílvia Costa Agostinho da Silva, who supervised and assessed my Master's thesis. I would like to warmly thank her for the helpful suggestions, the constructive criticism during the preparation of this thesis and the willingness to always help me and have an open ear for me.

Special thanks go to all the participants in my survey, without whom this work could not have been produced. My thanks goes to their willingness to provide information and their interesting contributions and answers to my questions.

I would also like to thank my parents, Gabriele and Stephan Moll, who supported me with a lot of patience, interest and helpfulness. I would like to thank them for the numerous interesting debates and ideas, which have contributed significantly to the fact that this Master's thesis is available in this form. Moreover, I would like to thank them for making it possible to study abroad.

Finally, I would also like to thank, Yannick Moll and Tom Gasenzer for proofreading my master's thesis and always supporting me.

Resumo

Dada a crescente importância do trabalho remoto e os desafios a ele associados, este estudo transversal (N = 175) visa esclarecer como a confiança organizacional no trabalho remoto terá impacto no engagement dos trabalhadores no trabalho. Por conseguinte, testou-se a hipótese de que a confiança organizacional no trabalho remoto esteja positivamente relacionada com o vigor, dedicação e absorção. Os resultados demonstram, uma relação positiva e significativa entre a confiança organizacional no trabalho remoto e as três dimensões do engagement no trabalho. Além disso, previa-se que três exigências do trabalho, incivilidade no email, sobrecarga do email e intensidade do email moderariam a relação entre a confiança organizacional e vigor, dedicação e absorção. O modelo das exigências de trabalho-recursos foi utilizado para justificar esta proposta de moderação. Contudo, os resultados mostraram que apenas a incivilidade e a intensidade do email moderam a relação entre a confiança organizacional e a absorção, de tal forma que o efeito positivo da confiança organizacional na absorção é mais forte quando a incivilidade e a intensidade do email são elevadas. Além destes resultados, serão exploradas contribuições teóricas, implicações práticas e outras sugestões para investigação futura.

Palavras-chave: Confiança organizacional, trabalho remoto, incivilidade do email, sobrecarga do email, intensidade do email, engagement no trabalho

Códigos de classificação JEL: O15 (Desenvolvimento Econômico, Inovação, Mudança Tecnológica e Crescimento: Recursos Humanos, Desenvolvimento Humano, Distribuição de Renda, Migração) e Y4 (Dissertações)

Abstract

Given the growing importance of remote working and the challenges associated with it, this cross-sectional study (N = 175) aims to shed light on how organisational trust in remote work will impact employees work engagement. Therefore it is hypothesised that organisational trust specific to remote work is positively related to vigor, dedication and absorption. The results demonstrate, a positive and significant relationship between organisational trust in remote work and the three dimensions of work engagement. In addition, it was predicted that three job demands, e-mail incivility, e-mail overload and e-mail intensity will moderate the relationship between organisational trust and vigor, dedication and absorption. The job demands-resources model was used to justify this moderation concept. However, the results showed that only e-mail incivility and e-mail intensity moderate the relationship between organisational trust and absorption, such that the positive effect of organisational trust on absorption is stronger when e-mail incivility and e-mail intensity are high. Besides these findings, theoretical contributions, practical implications and further suggestions for future research will be explored.

Keywords: Organisational trust, remote work, e-mail incivility, e-mail overload, e-mail intensity, work engagement

JEL Classification code: O15 (Economic Development: Human Resources; Human Development; Income Distribution; Migration) and Y4 (Dissertations)

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1. Introduction

Triggered by environmental events, such as the current COVID-19 pandemic, employees and employers are experiencing a radical change in their everyday working lives (Reuschke & Felstead, 2020). Within a very short period of time, companies had to rethink and change their processes, offer more flexibility in the workplace, prepare their employees for working in a fast-changing surrounding and much more to prevent a further spread of the virus and ensure the same productivity of the employees (Shaw et al., 2020). Crises like COVID-19 are accompanied by restrictions imposed by the government, which companies have to comply with. For instance, many employees were forced to work from home to maintain social distance and contain the virus (Waizenegger, McKenna, Cai & Bendz, 2020). Moreover, in general Charalampous, Grant, Tramontano and Michailidis (2019) note that remote working is rapidly increasing nowadays and has turned into a multifaceted occurrence.

Nonetheless, the process of remote working has existed in much earlier times, for example when the company Yahoo started to think about it in the 1980s (Nilles 1988). In 2019, only one out of twenty employees regularly worked from home (Joint Research Centre, 2020), showing that this form of working was far from being as widespread as it is today. Remote working was considered more of a luxury for the wealthy (Desilver, 2020) and companies as well as workers had less experience with this style of working (Wang, Liu, Qian & Parker 2021). However, the outbreak of the pandemic, has made remote working a normality that did not exist to this extent before (Wang et al., 2021) and forced many employees to start the trial of working in a new environment (Kniffin et al., 2020). In addition, advances in today's technology through information and communication technologies such as smartphones and have contributed massively to the growing revolution of remote working (Bentley et al., 2016).

Remote work is described as "a flexible work arrangement whereby workers work in locations, remote from their central offices or production facilities, the worker has no personal contact with co-workers there, but is able to communicate with them using technology" (Di Martino & Wirth, 1990, p. 530). Furthermore, the literature also contains synonyms for remote working, as remote work is often also described as teleworking, telecommuting or agile working (Grant, Wallace, Spurgeon, Tramontano & Charalampous, 2019).

One impact that remote work entails is the changed relationship between the remote worker and the organisation that occurs as a result of being away from the usual workplace (Grant et al., 2019). This is evident, for example, through the fact that, remote working and the adapted new leadership style is linked to the empowerment and honesty of employees and substitutes the traditional working models which were often characterised by close and direct supervision (Kowalski & Swanson, 2005). Therefore one particular upcoming challenge

concerning the separation is the relationship of trust between the organisation and the employee (Grant, Wallace & Spurgeon, 2013). The reason behind this, is that remote working eliminates the direct, face-to-face contact with the supervisor that normally forms the relationship in a traditional working model. Moreover, the resulting lack of face-to-face communication, often affects the synergy between the worker and supervisor and makes it difficult to understand non-verbal and verbal cues, which in turn could result in a sense of mistrust (Warne & Holland, 1999; Mortensen & Gardner, 2021). Furthermore, remote working in general could lead to a decrease in communication and information sharing due to the fact that technical communication is less powerful than face-to-face communication (Lee, Leung, Lo, Xiong & Wu, 2011; Park & Cho, 2020). However, as remote working can only be successful if there is trust on both sides, it is important to take this issue seriously and to build a culture of trust within the company (Kowalski & Swanson, 2005). Therefore, it is considered essential to explore the impact of organisational trust in a remote working relationship in order to highlight the positive outcomes that organisations could achieve if they foster such a culture.

One connection that many already established studies have found is the one of organisational trust and work engagement (e.g. Richardson, 2010; Lin, 2010; Deutsch-Salamon & Robinson, 2008). In fact, there is evidence, that a trusting relationship can have a positive influence not only on the overall success of an organisation, as the trust-experience an employee gains in the company will contribute to it (Krot & Lewicka, 2012) but also on employees' work engagement, as they are more likely to perform extraordinarily well, work more effectively and contribute more (Richardson, 2010). Furthermore, engaged workers are nowadays indispensable for companies, as they can contribute to a successful operation through a high level of commitment and willingness to work intensively (MacCormick, Dery & Kolb 2012). However, even though some studies have investigated this relationship, there is still need for further research. This is primarily due to the fact that previous research mainly focused on trust in organisations in general rather than on organisational trust especially for remote workers, and did not analysed the three dimensions of work engagement. Therefore this study aims to investigate how organisational trust for remote workers affects vigor, dedication and absorption.

Another aim of this study is to examine a possible moderation role of three characteristics of e-mails on the relationship between organisational trust for remote workers and each dimension of work engagement. This was considered important, as in order to overcome the problem of distance, remote work increasingly relies on the use of information and communication technologies (ICT) to communicate globally. These technologies include, among others, communication tools like e-mails, telephones, videos and instant messaging (Cameron & Webster, 2005). Especially communication via e-mail has developed in recent decades into a means of communication that is accessible to everyone (Huang & Lin, 2014)

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and is thus known as the main medium of communication in companies (Dabbish & Kraut, 2006). In fact, a statistic by Statista (2020) predicted that by 2024 the number of e-mails sent and received will already rise to 361.6 billion, which represents a significant increase in this type of communication technology.

Nevertheless, this rising use of the e-mail communication medium also has its downsides. For example, Soucek & Moser (2010) found that, in contrast to previous years, the amount of e-mails collected by an employee in the e-mail inbox increased significantly up to the stage where concerns were expressed. Moreover the intensity of checking work related e-mails could even go far beyond normal working hours and employees even continue to send or read e-mails after work (Charalampous et al., 2019). Furthermore with the increase in e-mail communication in remote work, it is also becoming more common for an employee to experience what is known as cyber incivility (Giumetti et al., 2013).

These potentially emerging issues associated with the new use of e-mail in remote working arrangements can be clustered into the so called job demands which can lead to disengagement. According to the JD-R model, job demands can play a moderating role in the relationship between job resources and work engagement (Borst, Kruyen & Lako, 2019). Therefore this study aims to clarify if e-mail incivility, e-mail overload and e-mail intensity will moderate the relationship between organisational trust as a job resource and vigor, dedication and absorption, such that the predicted positive effect of organisational trust on vigor, dedication and absorption is weaker when e-mail incivility is high and stronger when e-mail overload and e-mail intensity is high. This possible strength of moderation roles are based on the classification of the e-mail characteristics into job challenges or job hindrances. Moreover to the best of our knowledge, no study included components of e-mail characteristics and its possible moderation between organisational trust in remote work and the dimensions of work engagement, which gives us the opportunity to fill this gap in the research.

In summary, as a first step, this study aims to examine the relationship between organisational trust in remote working and vigor, dedication and absorption. In the second step, the job demands e-mail incivility, e-mail overload and e-mail intensity are used as moderators to examine how the relationship between organisational trust and the three components of work engagement will change.

The next section consists of the literature review, where we cover the relevant concepts, provide the readers with a broad overview of the topic and presents the theoretical background to support the proposed hypotheses. Then, we will describe the methodology used for data collection and provide an analysis of the results collected. Lastly, we will discuss the findings, provide a conclusion, show contributions to the existing theory and highlight practical implications. In the last step, we also draw conclusions regarding limitations of the study and opportunities for future research.

2. Literature Review

2.1. Organisational Trust and Work Engagement

Trust in the workplace and the organisation is a phenomenon that has been studied by many researchers in organisational research (e.g. Jena, Pradhan & Panigrahy, 2018; Yu, Mai, Tsai & Dai, 2018). However, with the increased growth of remote work, the understanding of organisational trust has widened. As such Grant et al. (2019) define trust in the e-working environment as "the level of autonomy and responsibility afforded to the individuals whilst e-working" (p. 19). Furthermore, the authors describe organisational trust as a component that contributes to the overall relationship to the organisation. This general relationship with the organisation refers to the perception of the e-working. In general, this given work autonomy relates to the extent of freedom, independence and latitude granted to each individual in planning and performing their work (Ahuja, Chudoba, George, Kacmar & McKnight, 2002).

According to Gajendran & Harrison (2007), the new form of remote work in itself can already contribute to a certain level of trust and therefore autonomy, as the feeling of freedom is enhanced since the worker is spatially and thus also psychologically separated from direct supervision. Furthermore, the flexibility created by remote working (e.g. flexibility in the work location and time) also increases the feeling of having more self-responsibility in terms of work planning and being able to decide for oneself which resources are used to complete work tasks. In addition, remote work allows to determine breaks, choose work outfits, spatial arrangements and other factors that can contribute to the level of autonomy and responsibility (Gajendran & Harrison, 2007).

Nevertheless, organisational trust and thus the degree of autonomy and responsibility granted is also related to the perceived relationship with the supervisor and the organisation in general. Therefore, Shockley-Zalabal, Ellis & Winograd (2000) also view organisational trust as the "positive expectations individuals have about the intent and behaviors of multiple organisational members based on organisational roles, relationships, experiences, and interdependencies" (p.37). In the past, most companies only allowed employees they trusted to work remotely. However, as the pandemic progressed, a large proportion of employees had to start working remotely (Mortensen & Gardner, 2021). Herby, a recent study published by the Haward Business from the authors Parker, Knight & Keller (2020) on managers' trust in their employees when working remotely, found that some of the managers surveyed had problems trusting in the effectiveness of their remote workers. Also, many workers indicated that they felt that their manager did not trust them to do their job well when working remotely, which could blur those positive expectations and therefore also the trust an employee has in

his organisation while remote working. Moreover, another concern of managers is that workers may be too distracted and managers do not have the opportunity to measure the performance in the usual way, as they do not know exactly what has been worked on and what has not (Peters, Dulk & Ruijter, 2010). Furthermore, according to managers, the lack of face-to-face communication is a significant doubt related to trust, as this was previously seen as a success factor (Peters et al., 2010). This missing face-to-face interaction often affects the synergy between worker and supervisor and makes it difficult to understand non-verbal and verbal cues, which in turn can affect the trust relationship between these two parties (Cascio, 2000). Concerns like that could pose a significant problem in today's pandemic era, which according to Kowalski & Swanson (2005) can only be prevented if management fosters a trusting work environment by building a culture of trust, as remote working is based on the sincerity of an employee and monitoring from a distance. One important point to consider herby is organisational support, which is according to Chen, Aryee & Lee (2005) often positively related to employees' feelings of trust in their organisation. Since remote working has never been as prevalent as it is today, it is known that most workers do not have much experience in this regard (Wang et al. 2021). Therefore, organisational trust is positively influenced by the support provided by an organisation, for example by offering training on e-working skills or providing good facilities for remote working (Kowalski & Swanson, 2005) which in turn could also foster the level of autonomy and responsibility while e-working. Moreover, perceived trust is the biggest driver of success in remote work (Kowalski & Swanson, 2005; Golden & Raghuram, 2010) and is one of the most important aspects of managing remote workers successfully (Richardson, 2010). A trusting relationship can be built up by a superior treating the subordinate fairly, giving him autonomy and responsibility, considering his needs and offering help (Kim, Mullins & Yoon, 2021).

One of the consequences that can be influenced by the level of organisational trust while remote working is the work engagement of an employee. According to Schaufeli, Salanova, Gonzáles-Romá & Bakker (2002) work engagement is defined as "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication and absorption" (p.74). The vigor component describes workers' experience of being energetic at work and willing to invest a lot of time and effort in their work (Bakker, Schaufeli, Leiter & Taris, 2008). Moreover, vigor refers to affective experiences at work such as the feeling of physical strength, mental aliveness and emotional energy on an interpersonal level (Shirom, 2010). The dedication component, on the other hand, encompasses the concept of experiencing work as meaningful and significant (Bakker et al., 2008). Furthermore, this dimension includes strong involvement in one's own work and the experienced feeling of coping with challenges, excitement, absorption, focuses on the feeling of being completely absorbed in one's work. In this case,

workers are totally immersed in their work and concentrate fully on the work itself (Schaufeli et al., 2006). Individuals get into a flow of work where time is forgotten and passes very quickly, making it difficult to disengage from work (Csikszentmihalyi, 1990). Furthermore, the absorption component reflects the experience that the work is interesting and the workers are fully committed (Bakker et al., 2008). In general, all the dimensions of work engagement are well known as the counterpart of job burnout (Schaufeli, Bakker & Salanova, 2006). While workers who experience job burnout show feelings of exhaustion, have a more disengaged approach towards work or colleagues, or feel that they are not working effectively (Maslach, Jackson & Leiter, 1996), engaged workers, on the other hand, are positive connected to work. They are more energetic and enthusiastic and are able to meet the work requirements of the job (Schaufeli et al., 2006). More specifically, the components vigor, dedication and absorption are exactly the opposite of exhaustion, which is the main symptom of burnout (González-Romá, Schaufeli, Bakker & Lloret, 2006) as they represent energetic reservoirs, strong involvement and total immersion in the work. Moreover, work engagement in general is often described as passion, enthusiasm, concentrated effort, commitment and involvement (Schaufeli & Bakker, 2010). Thus, is often linked to a wide range of positive job outcomes such as well-being (Caesens, Stinglhamber & Luypaert, 2014). One reason for this might be that engaged employees usually perform relaxing activities after work that promote detachment from the workplace (Sonnentag, Mojza, Demerouti & Bakker (2012).

Many studies have already demonstrated that a high level of work engagement can often be caused by job resources, such as organisational trust, perceived support and autonomy. Job resources are part of the job demands-resources (JD-R) model, which is along with the job demand control (JD-C) and the effort reward imbalance (ERI) model, one of the leading and best known job stress models that have emerged in the 21st century (Schaufeli & Taris, 2014). The JD-R model is a framework which helps to understand the relation between job characteristics and employee well-being. The idea behind the traditional model was to classify working conditions in job demands and job resources (Lesener, Gusy & Wolter, 2019; Schaufeli & Bakker, 2004). Job resources are particular features of jobs which help workers to achieve their goals, enhance personal growth and decrease stress levels or in general reduce job demands (Bakker & Demerouti, 2007). Out of these reasons, job resources are highly desirable and can be a predictor for work engagement. Conversely, job demands are particular features of jobs which involve physical or mental efforts and consequently have a negative influence on the physiological and psychological well-being of individuals (Schaufeli & Bakker, 2004). They are also characterised as a cost for an employee and a predictor of burnout (Bakker & Demerouti, 2007). Nevertheless, further research on the traditional JD-R model has shown that the two traditional classifications of working conditions into job resources and job demands are not sufficient enough, as not all results matched these two categories and their typical relations to work engagement or burnout (Olafsen & Frølund, 2018). This has been shown, for example, by the fact that high workload, which is usually a job demand, is not negatively related to work engagement as assumed by the traditional JD-R model, but positively (Schaufeli, Taris & Van Rhenen, 2008). For this reason, a further classification of job demands was proposed. According to Van Den Broeck, De Cuyper, De Witte & Vansteenkiste (2010) this classification is mainly based on the additional distinction between job challenge demands and job hindrance demands, resulting in a total of three categories in the JD-R model (job resources, job challenges and job hindrances). Job challenges are demands that employees see as barriers that must be tackled as a way to learn and accomplish (Cavanaugh, Boswell, Roehling & Boudreau, 2005). They are characterised by the fact that they can not only be energy-draining but also have the potential to promote the competences of employees and to support the process of coping with demands, which is why positive work results can also be achieved (Olafsen & Frølund, 2018). Job hindrances, on the other hand, are demands that are perceived as unnecessary hardship and hinder individual growth and goal achievement. They are linked to negative outcomes such as burnout and disengagement (Van Den Broeck et al., 2010). Moreover based on the JD-R model, both job demand types in general can play a moderating role in the relationship between job resources and work engagement (Borst et al., 2019).

Linking the JD-R Model to organisational trust and work engagement, Carmeli & Spreitzer (2009) found that organisational trust is considered as a job resource, which could lead to success in the workplace. According to Schaufeli & Taris (2014), this success in the workplace might be attributed to the fact that job resources, such as organisational trust, promote a satisfying, positive work-related mental state (i.e. vigor, dedication and absorption). In addition, job resources, such as in this case a good level of organisational trust, lead to workers being willing to put all their effort into the work, being motivated, and wanting to achieve their goals, all of which are incorporated into the components of the work engagement dimensions (Schaufeli & Taris, 2014). Moreover, a trustful relationship between the leader and the subordinate in a remote working arrangement makes it possible to significantly increase employees performance (Orlitzky & Frenkel, 2007), to raise job satisfaction (Matzler & Renzl, 2006) and to higher the work engagement (Richardson, 2010). Also, Henderson Brower, Lester & Korsgaard (2017) found that employees who feel that their supervisor does not fully trust them are less committed and therefore less involved in work (dedication component). Furthermore, Jaffe (2018) points out that an individual is willing to put all his or her energy into the work if there is trust on both sides (vigor). Moreover, according to Jaffe (2018) when there is a certain level of trust, workers reward this by fully committing, contributing and putting all their effort into it (absorption). In addition, several other studies came to the conclusion that organisational trust has a positive influence on work engagement. For example Buckley (2011) conducted a study on trust in organisations and found that higher organisational trust also leads to higher work engagement. Also, Nešićm, Mitrović Veljković, Meško & Bertoncel (2020) found in their study that trust is positively related to an employee's work engagement and can not only help to increase performance but also to decrease absenteeism. Deutsch-Salamon & Robinson (2008) have a similar assumption and discovered in their study that when trust is present, employees' norms of responsibility are strengthened, which in turn can lead to higher work engagement. In addition, Lin (2010) has also found that if an employee does not perceive trust, it can affect work engagement negatively. Moreover, another study by Vanhala, Heilmann & Salminen (2016) has shown that organisational trust also has an effect on the commitment of an employee and since commitment is often compared to work engagement, it can be assumed that organisational trust also has a positive influence on work engagement. Furthermore, the study showed that once an employee experiences positive behaviour from their employer, they bring these positive experiences back to the company through their work. Therefore, it is plausible to predict the positive effect of organisational trust in a remote working arrangement on the components of work engagement, which is why we put forward the following hypotheses:

- H1a: Organisational trust in remote work is positively related to vigor
- H1b: Organisational trust in remote work is positively related to dedication
- H1c: Organisational trust in remote work is positively related to absorption

2.2. E-Mail Incivility as a Moderator

As already mentioned previously, there are some studies that have found a relationship between organisational trust and the dimensions of work engagement (e.g. Richardson, 2010; Schaufeli & Taris, 2014). This mostly found positive correlation has probably been reinforced in the last year, as COVID-19 has forced many employers to let their employees work remotely, and managers or organisational trust can have a positive impact on employee engagement. Therefore, it is rather unsurprising that we forecast a positive relationship between organisational trust for the remote working employees and vigor, dedication and absorption. Nevertheless, we argue that the extent to which organisational trust is related to the dimensions of work engagement will depend on how much experience an individual has made with e-mail incivility will moderate the positive relationship between organisational trust of work engagement, such that the positive effect of trust on work engagement is weaker when e-mail incivility is high.

Prior to justify the moderation foundation it is important to understand the variable e-mail

incivility, as it is a phenomenon that occurs nowadays more often due to the increasing use of e-mail communication (Giumetti et al., 2013). With the introduction of remote working, a culture has been established that is increasingly moving away from the typical face-to-face communication towards a technological-based computer communication (McCarthy, Pearce, Morton & Lyon, 2020). This new way of communicating, just like face-to-face communication, can sometimes lead to misunderstandings, be perceived as rude or even be intentionally worded rudely. Due to the fact that many companies nowadays consider e-mail communication as their main form of communication, it is becoming more and more common for an employee to experience the so called cyber incivility (Giumetti et al., 2013). Therefore, an emerging topic of study is the e-mail content with its potential for cyber incivility (McCarthy et al., 2020). The word cyber incivility in association with e-mails describes an inappropriate behaviour in which, the recipient of an e-mail perceives the content of an e-mail as disrespectful and a violation of social standards (Porath & Erez, 2007; Lim & Teo, 2009). This increasing potential for cyber incivility can have several reasons: On the one hand, it is easier to disregard the norms of politeness or not express them explicitly enough in e-mails than in face-to-face communication (McLeod, Baron, Marti & Yoon, 1997). This can result in colleagues or even the management unintentionally saying certain things in an online interaction which they would never express in a personal conversation. On the other hand, it is more difficult to understand the message as there is no facial expression that the receiver can interpret or the tone of voice that indicates a certain meaning of the message (Friedman & Currall, 2003). Another way of explaining e-mail incivility is the writing style: Improper grammar or lack of politeness, such as an appropriate greeting or closing formula, can add to the sense of incivility and signal disrespect (Francis, Holmvall & O'Brien, 2015). Moreover, the time pressure of responding to a high volume of e-mails can also contribute to perceived rudeness. For example, a person could answer e-mails tersely, and quickly, which can be viewed as impolite (Buhler, 2003). Furthermore slow replies from the e-mail recipient, simply forwarding the e-mail with personal information to third parties or condescending comments can increase the feeling of workplace cyber incivility (Martin & Hine, 2005). Concerning e-mail incivility and the differences in this between remote workers and office-based workers, the literature offers little insight. In general, however, it does shed light on the fact that the increasing use of e-mail makes rude content more likely to occur today (Park, Fritz & Jex, 2018). It has also been shown that negative online communication, as opposed to face to face communication, has a more powerful impact on the recipients of the negative message due to the lack of the possibility to sort things out via face to face communication (Byron, 2008). In addition, Friedman & Currall (2003) have noted that e-mails carry with them characteristics that make it easier for disputes to escalate. According to Byron (2008), this is partly due to the fact that even e-mail content convey emotions, even though people sometimes do not want this to happen. Kruger, Epley, Parker & Ng (2005) add that it is more difficult to transmit exactly what is meant when writing e-mails versus speaking face to face to each other.

Many studies have already found that incivility in the workplace occurs almost daily and inappropriate behaviour in the work environment can have an impact on the organisation itself and the employee. Incivility is associated with psychological distress, which can not only significantly affect an employee's performance, but also affect the overall job satisfaction, physical health and even cause aggressive behaviour which results in negative emotions and concentration difficulties (Giumetti et al., 2013). In addition, Lim & Teo (2009) examined the relationship between e-mail incivility and work engagement and concluded that employees who experience e-mail incivility have reduced work engagement. Moreover, the authors discovered that employees who suffered from rude behaviour in an e-mail from their manager were more likely to leave the company and no longer felt fully committed to the company. In addition Giumetti et al. (2013) figured out that incivility at the workplace is associated with lower energy (vigor component) and less involvement (dedication component). In addition, the productivity of victims who experience incivility is affected as they cannot fully engage in their work due to the bad conditions (absorption component).

Following the arguments regarding e-mail incivility, it is evident that e-mail incivility is one of the job demands in the JD-R model, as e-mail incivility can be perceived as an occupational stressor. More specifically, according to Viotti, Guglielmetti, Gilardi & Guidetti (2021) incivility is usually counted among the hindering demands as they lead to exhaustion, hinder personal growth and reduce energy and therefore have a negative impact on work engagement and a positive relation to negative outcomes such as burnout. Moreover, hindrance demands such as e-mail incivility demotivate employees and do not have the potential to be overcome as challenge demands would. In fact, the research from Tadić, Bakker, and Oerlemans (2013) found, that individuals which were exposed to high hindrance demands were less engaged at work. Furthermore, to justify the moderation, we are relying on the JD-R model, in which it is stated, that job demands in general can play a moderating role in the relationship between job resources and work engagement (Borst et al., 2019). Therefore, it is rather unsurprising that we forecast a moderating role of e-mail incivility, as it is a job hindrance demand that could moderate the relationship between organisational trust and vigor, dedication and absorption. Moreover we predict that the effect of organisational trust on the components of work engagement is weaker when e-mail incivility is high due to the fact that e-mail incivility is clustered into the hindrance demands and out of this reason could weaken the relationship between organisational trust and the components of work engagement. Therefore we put forward the following hypotheses:

H2a: E-mail incivility will moderate the relationship between organisational trust and vigor such that the positive effect of trust on vigor is weaker when e-mail incivility is high

H2b: E-mail incivility will moderate the relationship between organisational trust and dedication such that the positive effect of trust on dedication is weaker when e-mail incivility is high

H2c: E-mail incivility will moderate the relationship between organisational trust and absorption such that the positive effect of trust on absorption is weaker when e-mail incivility is high

2.3. E-Mail Overload as a Moderator

Furthermore, we argue that with the increase in remote working, e-mail overload is another potential job demand that should be illuminated and linked to the relationship between organisational trust and the components of work engagement. Therefore it is first considered important to understand the term e-mail overload.

Nowadays, information that can be sent quickly and efficiently can be an enormous advantage but can also lead to increasingly full inboxes (Thomas et al., 2006), implying that the communication via e-mails can quickly turn from a highly valued job resource into a costly job demand (Derks & Bakker, 2010). Herby, Vasić (2020) notes that particular remote working contributes to a high number of e-mails due to the need for constant communication and ensuring that messages are exchanged between supervisors, colleagues and employees.

Also, numerous studies have already identified that the volume of e-mails is steadily increasing nowadays, as more and more companies use virtual teams and adopt to use emails as their main communication medium due to its simplicity, rapidity of information transfer and ease of accessibility (Adam, 2002; Ingham, 2003). However, this phenomenon has not only advantages, but also various downsides. A high volume of e-mail leads to e-mail overload, which is characterised by a feeling of being overloaded and defined by a constant flow of messages that can no longer be dealt with in an effective way (McMurty, 2014). E-mail overload also represents information overload, which is defined by a person's inability to cope with the information they receive (Thomas et al., 2006) because it is an immense quantity of information (Dawley & Anthony, 2003). Moreover the term e-mail overload describes an individual's feeling of losing control over their own e-mail inbox as more e-mails are received or transmitted than can be managed. This is not only due to today's simplified ability to access e-mails more easily (Wood & Krasowski, 2020), but also due to the content or the way an email is written (Thomas et al., 2006) and the expected organisational norms regarding accessibility and speed of response (Reinke & Chamorro-Premuzic, 2014). For instance, technical devices such as smartphones have made it much easier to send and receive e-mails at any time, not only during regular working hours but also during leisure time (Wood & Krasowski, 2020; Barley, Meyerson & Grodal, 2011) or poorly worded content in an e-mail makes it much more difficult to understand the message, resulting in the need for the reader to reread the e-mail and send e-mails back and forth (Thomas et al, 2006). Moreover, Kimble, Hildreth & Grimshaw (1998) found, that e-mail overload also arises due to the cc (carbon copy) function. The authors observed that many employees do not use the CC function properly and often simply involve staff or higher management in the CC function to ensure that they receive the information and to show that the work which is assigned to them has been done properly. However, these people who are in CC sometimes do not know that this e-mail has been sent partly for information purposes only and is not even particularly important for their work. Therefore, the recipient of such e-mails spends a lot of time trying to figure out the reason for the e-mail (Kimble et al. 1998). Moreover, on the whole, e-mail overload increases the overall volume of work that needs to be done and consequently more time is required to work. According to Dawley & Anthony (2003), this extra workload, is created by the fact that e-mails, unlike letters, are very simple to send and can therefore accumulate. People have to spend more time sorting, answering and filtering e-mails and creating an overview in the inbox. In this context, Sumecki, Chipulu & Ojiako (2011) have identified that it is very challenging for email users to store their read e-mails, to establish categories where they can retrieve their emails at a later time, and thereby create a more empty inbox. Furthermore, e-mails simultaneously generate requests that need to be dealt with and can thus lead to distractions from the actual task (Manger, Wicklund & Eikeland, 2003). This in turn can affect the overall concentration as the constant interruption results in more time being needed to get back to the original task. In fact, it was found, that it takes 64 seconds to come back the original task for an employee (Jackson, Dawson & Wilson, 2003).

Overall, this phenomenon of e-mail overload could generally lead to different consequences such as work stress and thus impairs well-being by causing exhaustion (Barley et al., 2011). It implies a situation where a worker has too many demands, which in turn can affect the overall job satisfaction and thus the three dimensions of work engagement. Furthermore, e-mail overload is associated with feelings of fatigue, chronic illness and even burnout (Cham, Andrei, Griffin, Grech & Neal, 2021). Since burnout is the opposite of the components of work engagement (Schaufeli et al., 2006), it is not surprising that Reinke & Chamorro-Premuzic (2014) found in their study that workers who receive a high volume of emails and feel overloaded are less engaged at work. Specifically, the study found that e-mail overload increases the likelihood of suffering from burnout. Moreover, linking e-mail overload to e-mail incivility, Buhler (2003) also discovered that e-mail overload could be a trigger for incivility at the workplace which in turn could, also negatively influence the energy reserves of an employee (vigor component). In addition, as already mentioned shortly, a large amount of e-mails leads to many interruptions, which lowers the concentration on the task at hand. For this reason, it is reasonable to assume that work engagement is also affected, as engaged workers are characterised by a focused atmosphere and total immersion in their work.

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However, a high number of e-mails could lead to distractions that could negatively affect absorption. Furthermore, a link between experienced e-mail overload and organisational trust can also be assumed. As Shockley et al. (2000) definition of organisational trust suggests, organisational trust means that an individual has positive expectations of the intentions and behaviour of others in the organisation. However, if an employee receives so many e-mails that he or she is overloaded and their well-being may be affected and they cannot work effectively, it can be assumed that these positive expectations of others are not met. Moreover, it can also be expected that an employee who is overloaded with e-mails has experienced less organisational support, such as the correct handling of e-mail overload, or training on eworking.

As can be seen from the aforementioned research, e-mail overload can clearly be interpreted as a job demand that can undermine the positive effect expected from job resources (Derks & Bakker, 2010). Therefore, we integrate e-mail overload into the context of the JD-R model, which suggests that job demands such as e-mail overload could moderate the relationship between job resources and different dimensions of work engagement (Bakker, 2011). However, we classify e-mail overload into the challenge demands, since according to Olafsen & Frølund (2018), also workload, which represents e-mail overload, belongs to the job challenges. Besides, it is stated that the more challenge demands an employee experiences, the greater the motivational role of the job resources on work engagement (Bakker & Demerouti, 2008) as job challenges have the power to stimulate employees' inquisitiveness and thoroughness. Moreover, job challenges promote a problem-oriented coping style that can lead to the accomplishment of work aims and can out of these reasons be associated with positive work outcomes (Olafsen & Frølund, 2018). Therefore, in this case, the job resource organisational trust would thus have a motivational aspect on the different dimensions of work engagement when employees are confronted with high e-mail overload. Moreover, if employees experience organisational trust when remote working, they might overcome the challenge of e-mail overload. Considering these arguments, we put forward the following hypotheses:

H3a: E-mail overload will moderate the relationship between organisational trust and vigor such that the positive effect of trust on vigor is stronger when e-mail overload is high H3b: E-mail overload will moderate the relationship between organisational trust and dedication such that the positive effect of trust on dedication is stronger when e-mail overload is high

H3c: E-mail overload will moderate the relationship between organisational trust and absorption such that the positive effect of trust on absorption is stronger when e-mail overload is high

2.4. E-Mail Intensity as a Moderator

Furthermore, we argue that the extent to which organisational trust is related to work engagement also depends on how often an employee checks his/her e-mail. Therefore, e-mail intensity is defined in this study as the "frequency of checking e-mails before and after work" (Mano & Mesch, 2009, p. 61) and used as a challenge demand - moderator in this study. Moreover, e-mail intensity is very closely linked to e-mail overload, because a high number of e-mails may result in employees working even harder and longer, which in turn leads to a higher e-mail retrieval rate.

Especially in remote working agreements, Mungly & Singh (2012) found that remote workers use communication tools such as e-mail more frequently and are consequently more reliant on them, which increases the likelihood that they will experience a high amount of emails which they need to work on. Therefore, in order to work effectively, employees think it is essential to check work-related e-mails frequently to ensure the necessary flow of information and to complete the required tasks to the fullest satisfaction (Mano & Mesch, 2009). In a survey by the Pew Research Center (2014), it was determined that it would be almost impossible for more than a third of the participants surveyed to abandon e-mails and to not look at them regularly. This is astonishing, because this figure is more than three times higher than in a survey on not using social media for e-mail access. Moreover, the checking of work related emails could even go far beyond normal working hours and employees even continue to send or check e-mails after work or in their free time (Charalampous et al., 2019). It has been identified that workers typically spend eight hours per week in non-work time reading and responding to work-related e-mails (Business News Daily, 2020). For instance, mobile technology with its access to e-mails no longer leaves any room for not being connected to the job, which means that a separation between private life and work is hardly possible (Sarker, Sarker, Xiao & Ahuja, 2012). Moreover, similar to this view of Sarker et al. (2012) many researchers have already found that more and more employees find it difficult to separate work and personal life (e.g. Ashfort, Kreiner & Fugate, 2000; Sarker et al., 2012). This is mainly attributed to the technology that allows individuals to be in touch with the office at all times and from any place in the world (Richardson & Benbunan-Fich, 2011). Furthermore, another study by Kelliher & Anderson (2010), which examined flexible working practices, reduced hour working and remote working, showed that workers who did not work full-time regularly checked their e-mails even on their days off. This was evident from the testimony of one worker interviewed:

On a Monday, when I'm not at work, I'll typically put in forty minutes to an hour just checking my emails to make sure that I'm on top of any issues that come up, or that came up over the weekend . . . so I check the email at least once if not twice during the Monday. (p. 93).

Also, Felstead, Jewson & Walters (2003), in their study of managers' ability to control workers who work from home, found that without workers visibility, it is difficult for some to believe that remote workers are truly productive. As a result of this lack of visibility, many workers developed behaviours that could increase their visibility. These include, for example, writing e-mails outside of typical working hours to show that they are hard working.

To address the consequences of this increased intensity, the study by Bloom, Liang, Roberts & Ying (2015) has shown, that remote workers tended to work harder and were connected to the system for longer periods. This was also confirmed by the study by Felstead & Henseke (2017), which discovered that remote workers continue to work after official working hours and show more effort, which is also a sign for a higher e-mail intensity and moreover also a hint for higher work engagement. Tietze & Musson (2005) have also found that the work intensity of remote workers can be higher and that they work longer hours, contrary to supervisors' fears that employees will work less and performance will be negatively affected in remote work (Felstead et al., 2003). Linking this to work engagement Beckers et al. (2004) found in their study that there is a positive correlation between work engagement and overtime, which is also an indicator for higher e-mail intensity. Engaged workers usually work longer times, with a higher intensity and with a strong focus on the task (MacCormick, Dery & Kolb, 2012). Moreover according to the dimensions of work engagement mentioned above, the component of absorption shows, that engaged persons have difficulties to switch off from work (Bakker & Demerouti, 2008) and are always deeply involved. However, it has been proven that not only too little but also too much engagement (e.g. through high e-mail intensity) can be problematic, as high engagement can lead to burnout, where the energy level typical of an engaged worker switches into exhaustion, the involvement transforms to cynicism and the effectiveness turns into ineffectiveness (MacCormick et al., 2012).

Furthermore according to the work-life balance literature this constant connectivity has been shown to have significant implications for the worker and the organisation. On the one hand, the well-being of an employee can be significantly affected and on the other hand, it can impact the organisation with increased sickness rates or even reduced performance (Büchler, Hoeven & Zoonen, 2020). Besides, as already mentioned, the lack of work-life balance and the work-life conflict that can arise from this constant connectivity were highlighted (Sarker et al., 2012). In addition, employees experience high levels of stress due to the feeling of necessity to provide a quick response, which is exacerbated by the constant checking of messages (McMurtry, 2014). Employees' may feel stressed to match the speed of response to corporate e-mail norms, putting themselves under pressure to respond as quickly as possible (Middleton & Cukier, 2006). The sense of importance of being in tune with one's company and staying connected can generate obsessive behaviours that lead to continually looking for new messages (Turel & Serenko, 2010). For instance, one study found that some

respondents even check their e-mail while being on the toilet (Matusik & Mickel, 2011). Moreover, it has been shown that this obsessive behaviour of constant connectivity can affect the recovery process of work (switching-off), as it is important to be able to psychologically detach from work (Büchler et al., 2020). Especially for knowledge workers, according to Gupta, Sharda & Greve (2010), it is normal to answer e-mails continuously or to check the inbox because of the urgency to answer some of these e-mails immediately. However, this incessant checking of e-mails can lead to many interruptions of the actual work and thus affect productivity and well-being. Constantly switching to e-mails when a new e-mail is received and the interruption of the original tasks degrades performance and raises cognitive load (Kushlev & Dunn, 2014). A study has demonstrated that workers who can switch off from work have a higher well-being and less stress (Siltaloppi, Kinnunen & Feldt, 2009). They can recharge their batteries and be healthy and productive the next day. Workers who do not take this break, for example, experience health complaints and increased stress (Taris, Geurts, Schaufeli, Blonk & Lagerveld, 2008), which can lead to burnout and therefore lower the energy level.

Many studies have shown that a high rate of e-mail intensity can have a negative impact on the well-being of employees. For instance, being constantly online and checking e-mails all day long can create physical and mental effort that can have a negative impact on the individual. Therefore, according to the JD-R Model explained above, the e-mail characteristic e-mail intensity can be seen as a job demand and hence play the role of a moderator. It is expected, that e-mail intensity moderates the relationship between organisational trust and vigor, dedication and absorption. Moreover it is stated that the higher the e-mail intensity, the greater the motivational role of organisational trust on vigor, dedication and absorption (Bakker & Demerouti, 2008), as e-mail intensity can be clustered into the challenge demands. We classify e-mail intensity into this type of demands due to the fact that it relates to workload and workload is allocated to job challenges by Olafsen & Frølund (2018). According to Lepine, Podsakoff, & Lepine (2005) challenge stressors such as e-mail intensity are positively related to vigor, dedication and absorption as those kind of demands are seen as hurdles that need to be tackled. Moreover e-mail intensity as a challenge demand triggers motivation and could therefore promote individual goal setting and learning. Also, the study by Schaufeli et al. (2008) showed that high workload, which is associated with high e-mail intensity is not negatively related to work engagement but positively. Considering these arguments, we put forward the following hypotheses:

H4a: E-mail intensity will moderate the relationship between organisational trust and vigor such that the positive effect of trust on vigor is stronger when e-mail intensity is high H4b: E-mail intensity will moderate the relationship between organisational trust and dedication such that the positive effect of trust on dedication is stronger when e-mail intensity is high

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H4c: E-mail intensity will moderate the relationship between organisational trust and absorption such that the positive effect of trust on absorption is stronger when e-mail intensity is high

In summary, this study proposes a moderation research model. In this model the relation between organisational trust and vigor, dedication and absorption will be moderated by three characteristics of e-mail communication: E-mail incivility, e-mail overload and e-mail intensity. A graphical illustration of the model is shown in Figure 1.



Figure 1. Research model

3. Methodology

3.1. Participants

In total, 217 employees took part in the study. Of these 217 participants, only 196 (N = 196) completed the entire online survey. 21 people did not answer the survey in full, therefore their answers are not included in the study. Moreover, we excluded outliers, which resulted in a final sample number of (N = 175). The data collection was based on a non-probabilistic convenience sample, where respondents were those who showed interest in participating in the study or were easy to access on a random basis. The final sample number (N = 196) does not include workers who a) have never done remote work or b) do not use e-mail in their work, as these criteria were deemed necessary for this study. The sample included employees working in different roles and sectors of companies.

The largest proportion of participants who answered the survey were women (53%), followed by men (45%). Only 2% of the participants assigned themselves to the non-binary/third gender or preferred not to mention their sex. Of the 53% response rate of women, 51% work in Switzerland and 39% in Germany. In total 68% of the women have completed either a vocational training or a bachelor's degree.

More than half of the whole respondents (61%) are either younger than 29 years old (36%) or between 30-39 years old (25%). The largest number of participants are Germans (53%), followed by Swiss with a 28% contribution. From this number of German participants, 40% work in Switzerland. Overall, the majority of respondents work in Switzerland (58%) or Germany (29%). In terms of education level, the largest proportion of participants (64%) completed either a vocational training (33%) or a bachelor's degree (31%). In relation to the seniority rate 60% of the respondents have been with their company for less than 2 years (30%) or 2-5 years (30%). The median of the total seniority is 2. Moreover almost 90% of the participants work full-time (86%) and only one seventh of the participants (14%) are in a part-time employment agreement.

As this study focuses on remote work, it is important to note that all of the 196 participants are linked to a remote work arrangement. These nevertheless vary in different arrangement forms: The significant majority of the study participants are workers who perform remote work in a mixed combination (86%), meaning that the employees work remotely and in the office. More specifically, a total of 54% work some days a week remotely and some days a week in the office.

Furthermore, this study concentrates on the use of e-mails, which is why only Participants using this communication medium at work were taken into consideration. Almost all of the respondents (94%) use e-mail every day at work. In terms of e-mail work importance, the mean of the respondents is 4,3 indicating that, on average, e-mails are very important for

participants to get their work done. A visual characterisation of the sample can be found in Figure 2.

Variables	Answer	Frequency
	Male	45%
1. Sex	Female	53%
	Non binary/Third Gender	1%
	Prefer not to say	1%
	Less than 29 years old	36%
	30-39 years old	25%
2. Age	40-49 years old	18%
	50-59 years old	17%
	More than 60 years old	4%
	Swiss	28%
	German	53%
3. Nationality	Portuguese	4%
-	French	5%
	Italian	4%
	Other	6%
	Switzerland	58%
4. Workplace Country	Germany	29%
	Portugal	4%
	Other	9%
	High School	5%
	Vocational Training	33%
5. Education Level	Bachelor	31%
	Master	29%
	Doctorate	2%
	Less than 2 years	30%
6. Seniority	2-5 years	30%
	6-10 years	16%
	More than 10 years	24%
7. Contract Type	Full-time	86%
	Part-time	14%
8. Remote work arrangement	Only remote work	14%
	Mixed combination	86%
	Sometimes	3%
10. Level of e-mail usage	Most of the time	3%
	All the time	94%

Figure 2. Sociodemographic characterisation of the sample

3.2. Measures

All applied scales in this survey were measured with instruments that were already established in order to increase reliability (Stone, 1978).

Organisational trust. This variable which is specific to remote work, was measured using a reduced scale developed by Grant et al. (2019). The original scale included four different dimensions (Organisational Trust, Effectiveness/Productivity, Work-Related Flexibility and Work-Life Interference) but we only focused on two of them. The Organisational trust dimension consisted of three items measured using a five point Likert scale from 1 = strongly

disagree to 5 = strongly agree. Participants were given three statements to indicate the extent to which they agreed or disagreed. An example of an item is: "My organisation trusts me to be effective in my role when I e-work remotely". The Cronbach's alpha of the scale was 0,51, which indicates according to Nunally (1978) no adequate reliability. The author recommends that a minimum value of 0.70 must be achieved to ensure adequate reliability. Therefore we tried to exclude item 1, but the exclusion of this item would only lead to a slight improvement in Cronbach's alpha ($\alpha = 0,59$) and at the same time restrict the already short scale to two items. Exclusions of the other items would reduce the value of Cronbach's alpha even more. According to Panayides (2013), however, Cronbach's alpha is dependent on the number of items and small values could always arise due to a low number of questions (Tavakol & Dennick, 2011). Nevertheless, Schmitt (1996) clarified that smaller Cronbach's alpha values can also be used "when a measure has other desirable properties, such as meaningful content coverage of some domain and reasonable unidimensionality..." (p. 351-352).

E-mail incivility. The variable e-mail incivility was measured using the shortened 6-item e-mail incivility scale by Krishnan (2016) to reduce the survey duration and consequently enhance data reliability (Lefever, Dal & Matthíasdóttir, 2007). The original scale was developed by Lim & Teo (2009) and consisted out of 14 items. We used all 6 items from the shortened and validated scale by Krishnan (2016) and questioned the participants on how often they had experienced the respective behaviour in the past years. Respondents were given the opportunity to answer using a 5-point Likert scale from 1 = Never to 5 = Always. An example of an item is: (Someone) "said something hurtful through e-mail". The Cronbach's alpha of the scale was 0,79, indicating reliability (Taber, 2018).

E-mail overload. The variable e-mail overload was assed using the 7-item e-mail overload scale by the authors Dabbish & Kraut (2006). The variable focused on the e-mail overload a participant feels due to the fact that e-mails can no longer be acted upon. All items were rated on a five-point Likert scale from 1 = strongly disagree to 5 = strongly agree. Three items needed to be recoded in order to generate the same direction of the items. An example of this scale is the following statement: "I can handle my e-mail efficiently". The Cronbach's alpha of the scale was 0,80, the original one by the authors 0,82. According to Nunally (1978), this value of Cronbach's alpha shows reliability.

E-mail intensity. The measurement of the variable e-mail intensity was based on the measurement method of Mano & Mesch (2010). The variable deals with the process of how often e-mails are checked before and after regular working hours. Mano & Mesch (2010) collected their results by asking the participants "How often do you check your emails before or after work". Therefore, the same question was applied for this current study and measured using a four-point Likert scale ranging from 1 = never to 4 = frequently.

Work engagement (Vigor, Dedication, Absorption). The outcome variable work

engagement was measured using the Utrecht Work Engagement Scale (UWES-9) developed by Schaufeli et al. (2006). The scale consists of a total of 9 items, which are divided into three different subscales. All of the three different subscales were applied in this study. The first subscale describes the dimension vigor and consists of a total of 3 items. An example of an item in this subscale is: "At my work, I feel bursting with energy". The Cronbach's alpha of the scale was 0,83, indicating according to Nunally (1978) reliability. The second subscale analyses the component dedication and contains out of 3 items. The following statement can be shown as an example of an item of the subscale dedication: "My job inspires me". The Cronbach's alpha of the scale was 0,89, also showing reliability (Nunally, 1978). The third subscale is called the absorption scale and again comprises out of 3 items. An example for this scale would be the item: "I feel happy when I am working intensely". The Cronbach's alpha of the scale was 0,68, which we consider as acceptable due to the low number of items in the scale. Participants were given those statements to read for each dimension and were asked to decide, using a 7-point Likert scale ranging from 1 = Never to 7 = Always, whether they ever felt this way at work.

Control variables. With the help of different control variables, we will control the effects of the variables on work engagement in this study. For this reason, the following control variables were selected: Age (1 = Less than 29 years old; 2 = 30-39 years old; 3 = 40-49 years old; 4 = 50 - 59 years old; 5 = More than 60 years old), Education Level (1 = None; 2 = High School; 3 = Vocational Training; 4 = Bachelor's Degree; 5 = Master's Degree; 6 = Doctorate) and Seniority (1 = Less than 2 years; 2 = 2-5 years; 3 = 6-10 years; 4 = More than 10 years). These control variables were chosen because some previous studies have shown that seniority, age and education are related to the level of work engagement (Bal, De Cooman & Mol, 2013; Ramos, Jenny & Bauer, 2016; Lawrence, 2011). However, we found that education level and sex do not correlate significantly with work engagement, therefore these two control variables were excluded and only age and seniority were used as control variables.

3.3. Procedure

The online survey was created using the survey tool Qualtrics. The survey link was shared on various social media sites, LinkedIn and via e-mail. Also, relatives, friends and acquaintances were asked to share the different posts and to forward the survey in order to promote the distribution and thus the data collection. In addition, the survey was shared internally via an e-mail sent to all employees in a Swiss pharmaceutical company where the author of this study works. Within this e-mail it was also mentioned that there is a possibility to share the finished study results.

The survey started with a short acknowledgement of participation, the introduction of the

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author and the aim of the survey. Furthermore, it was announced how long the survey would take and that all answers would be evaluated anonymously and will be kept strictly confidential. In addition, participants had the option of choosing between the languages German and English. This was considered important as the corporate language in the Swiss pharmaceutical company is German. Moreover an e-mail address was provided to contact in case of any questions or uncertainties. Participants were asked to provide demographic information about themselves in the first part and were then invited to answer the different statements or questions regarding the variables in the further stages. At the end of the survey, participants received a short acknowledgement. The data was collected within a three-week period.

It is also worth mentioning that the participants were not offered a reward for their response, as it was desired that their participation would be on a voluntary basis. The data was subsequently analysed using the statistical programme IBM SPSS Statistics 26. The moderation variables were created using SPSS by multiplying the predictor and moderation variables.

4. Data analysis and results

4.1. Descriptive statistics and correlations

Table 1 shows the means, standard deviations and correlations of all variables. It can be seen that organisational trust was significant negatively related to e-mail incivility (r = -.28, p < .01) and positively related to vigor (r = .18, p < .05) and dedication (r = .22, p < .01). Moreover, e-mail incivility was positively related to e-mail overload (r = .24, p < .01) and negatively related to vigor (r = -.29, p < .01) dedication (r = -.27, p < .01), absorption (r = -.28, p < .01). E-mail overload was positively related to e-mail intensity (r = .17, p < .05) and negatively related to vigor (r = -.26, p < .01), dedication (r = -.20, p < .01) and negatively related to vigor (r = -.36, p < .01), dedication (r = -.20, p < .01) and absorption (r = -.26, p < .01). Furthermore, e-mail intensity was positively related to vigor (r = .17, p < .05), dedication (r = .21, p < .01), absorption (r = .22, p < .01) and education level (r = .17, p < .05). In relation to the control variables only age was positively related to vigor and absorption. Moreover, as can be seen, seniority was positively related to absorption. Therefore, we excluded education level as a control variable in all regression models. We added age as a control variable only in the models that included vigor. In addition, we controlled the models involving absorption by seniority and age. However, in the models that include dedication, we did not insert any control variables at all.

Table 1

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Organisational Trust	3.57	0.68	-									
2. E-Mail Incivility	2.02	0.55	28**	-								
3. E-Mail Overload	2.40	0.63	09	.24**	-							
4. E-Mail Intensity	2.78	1.11	.14	.04	.17*	-						
5. Vigor	5.17	0.94	.18*	29**	36**	.17*	-					
6. Dedication	5.34	0.98	.22**	27**	20**	.21**	.75**	-				
7. Absorption	5.02	0.93	.15*	28**	26**	.22**	.65**	.70**	-			
8. Age ^a	2.25	1.22	09	14	06	.13	.23**	.14	.15*	-		
9. Seniority ^b	2.33	1.15	07	05	.03	.08	.11	.12	.19*	.58**	-	
10. Education Level ^c	3.92	0.93	.00	.02	.08	.17*	.04	.00	.03	01	11	-

Descriptive statistics and correlations for study variables

Note. $a_1 = Less$ than 29 years old, 2 = 30-39 years old, 3 = 40-49 years old, 4 = 50-59 years old, 5 = More than 60 years old.

^b1 = Less than 2 years, 2 = 2-5 years, 3 = 6-10 years, 4 = More than 10 years.

^c1 = None, 2 = High School, 3 = Vocational Training, 4 = Bachelor's Degree, 5 = Master's Degree, 6 = Doctorate. ^{**}p < .01; p < .05.

4.2. Hypotheses Testing

The hypotheses were tested using multiple linear regression analyses, as this form of analysis allows to examine the relationship between multiple independent variables (trust and several moderating variables) and a single dependent variable (vigor, dedication and absorption; Uyanık & Güler, 2013). However, before we started to test the hypotheses using multiple linear regression analysis, the assumptions that need to be met in order to perform the analysis for each model were tested¹ (Casson & Farmer, 2014). In the first step, linearity was evaluated visually with the help of scatterplots and it was determined that this condition was not violated and linearity existed as no indication of higher order relationships (e.g. squared or cubic relationships) is discernible. The pearson's correlation coefficient (see Table 1) was also used to examine the linearity between the variables. Concerning the verification of the assumption that the mean of the residuals must be constant (equal to zero), the table of residual statistics for each model in SPSS showed that the mean of the residuals were zero, which suggested that this condition was fulfilled. Also, for each model it was tested whether the independent variables are not correlated with the residuals, and the results showed that this condition is also fulfilled for each model. In addition, the Durbin Watson test was conducted to verify the independence of residuals for each model. The value of the tests in each model were according to Hayes (2021) in the normal range (between 1.5 - 2.5), which suggests that independence among the residuals can be assumed. Furthermore, the prerequisite of homoscedasticity was tested for each model using the White test (because the data were normally distributed) and it was concluded that this value for each model was not significant and the prerequisite is therefore fulfilled. Additionally the homoscedasticity was tested with Scatterplots. When we examined the normal distribution using the Kolmogorov-Smirnov test, it was found that the data did not follow the normal distribution indicating that the residuals are also not normally distributed and that this requirement was therefore violated. However, since the sample size is large the central limit theory was applied, which states that the variables can be assumed to be normally distributed with a larger sample size (Kwak & Kim, 2017), therefore we considered the assumptions to be fulfilled. The test for the absence of multicollinearity showed that multicollinearity was present and needed to be corrected. In order to address this, the standard method for moderation analyses recommended by Aiken & West (1991) was adopted and therefore we mean-centered the independent variables to reduce the effect of multicollinearity. After mean-centering the variables all variance inflation factors (VIF) shrunk below the aspired level of 5. Finally, we looked at the outliers. We found with the help of SPSS that there were outliers for some variables, therefore these outliers were excluded, which resulted in a final sample number of 175 (N = 175).

¹ The assumptions tested for each model can be found in Annex A & B

Organisational trust and work engagement: E-mail characteristics as Moderator

To test the first hypotheses, in which we assumed that organisational trust is positively related to vigor, dedication and absorption the multiple linear regression analyses were conducted. In order to insert the control variables into the vigor and absorption models, dummy variables were created to treat each category of the control variables (except the reference category) as a separate variable. A summary of the results and steps for predicting the different subscales of work engagement are shown in Table 2, Table 3 and Table 4 in which we are stating the unstandardized Beta (*B*), the standardized coefficient Beta (β), the t-statistics value (*t*), R Square (R^2) and R Square Change ($_{\Delta}R^2$).

The first multiple regression analysis concerns our hypothesis H1a, in which we assume that organisational trust is positively related to vigor. In step 1, we inserted age into the model as the control variable; then, in step 2 we added organisational trust, as the predictor. As it can be seen in Table 2, organisational trust, $\beta = .19$, t(174) = 2.62, p = .010 was significant positively related to vigor after controlling for age. Furthermore, the inclusion of the predictor organisational trust in the model explains 7% more variance in vigor, compared to the model including age only. Therefore, our hypothesis 1a is supported.

		Work	engagement: V	igor			
		Step 1		Step 2			
	В	β	t	В	β	t	
Age 1ª	.27	.13	1.49	.26	.12	1.48	
Age 2 ^b	.18	.07	0.86	.23	.09	1.11	
Age 3 ^c	.65**	.26**	3.15	.65**	.26**	3.21	
Age 4 ^d	.59	.12	1.60	.70	.15	1.93	
Trust				.27*	.19*	2.62	
R^2	.06*			.10**			
ΔR^2				.07*			

Table 2Results of the multiple regression to test H1a

Note. ^aAge 1: 30-39 years old , ^bAge 2: 40-49 years old, ^cAge 3: 50-59 years old, ^d Age 4: More than 60 years old. ${}^{**}p < .01$; ${}^{*}p < .05$.

In the next step and seen in Table 3, H1b was tested, which predicts that organisational trust is positively related to dedication. As it can be seen, organisational trust, β = .22, *t*(174) = 2.95, *p* = .004 has a significant positive effect on dedication. Moreover, 5% of the variation of dedication is explained by organisational trust in the model. Therefore, hypothesis 1b is supported.

Work engagement: Dedication								
	В	β	t					
Trust	.32**	.22**	2.95					
R ²	.05**							

Table 3Results of the multiple regression to test H1b

Note. ***p* < .01

Then, we tested H1c, in which we predicted that organisational trust is positively related to absorption. Therefore, in step 1, we included the control variables age and seniority into our model, then in step 2, we added organisational trust as the predictor variable. As it can be seen in Table 4, the predictor variable organisational trust has a significant positive effect on absorption, $\beta = .16$, t(174) = 2.12, p = .036, which means that hypothesis H1c is supported. Overall, however, the variance explanation in step 2 is not yet significant, $R^2 = .08$, F(8,166) = 1.70, p = .102, which raises the question of whether organisational trust is the only appropriate predictor of absorption. Nevertheless, the inclusion of the predictor organisational trust in the model explains 3% more variance in absorption, compared to the model including seniority and age only.

Table 4

Work engagement: Absorption								
		Step 1		Step 2				
	В	β	t	В	β	t		
Seniority 1 ^a	11	06	-0.62	08	04	-0.42		
Seniority 2 ^b	.17	.07	0.77	.21	.08	0.93		
Seniority 3 ^c	.21	.10	0.91	.26	.12	1.14		
Age 1 ^d	.13	.06	0.69	.12	.06	0.66		
Age 2 ^e	.12	.05	0.53	.15	.06	0.67		
Age 3 ^f	.33	.13	1.30	.31	.12	1.22		
Age 4 ^g	12	03	-0.30	04	01	-0.10		
Trust				.22*	.16*	2.12		
R^2	.05			.08				
ΔR^2				.03*				

Results of the multiple regression to test H1c

Note. ^aSeniority 1: Less than 2 years, ^bSeniority 2: 6-10 years, ^cSeniority 3: More than 10 years. ^dAge 1: 30-39 years old, ^eAge 2: 40-49 years old, ^fAge 3: 50-59 years old, ^gAge 4: More than 60 years old. ^{*}*p* < .05.

The next step was to test the second hypotheses. Firstly, H2a was tested, where we previously predict that experienced e-mail incivility will moderate the relationship between organisational trust and vigor such that the positive effect of trust on vigor is weaker when e-

Organisational trust and work engagement: E-mail characteristics as Moderator

mail incivility is high. In step 1 we inserted age as the control variable into the model; then in step 2, we included organisational trust as the predictor of our model; finally in step 3, we added e-mail incivility as the moderator variable and the interaction term between organisational trust and e-mail incivility into our regression model. The results presented in Table 5 show, that the interaction term between organisational trust and e-mail incivility is not significantly predicting vigor, $\beta = -.04$, t(174) = -0.47, p = .637. In order to make sure, that the non-significance of the moderation was not due to the inclusion of the control variables age and seniority, an additional analysis was conducted, in which we only included the predictor variable organisational trust, e-mail incivility and the interaction term. Nevertheless, the moderation effect was still not significant. Therefore, hypothesis 2a must be rejected.

			V	Vork enga	gement: V	igor				
		Step 1			Step 2			Step 3		
	В	β	t	В	β	t	В	β	t	
Age 1ª	.27	.13	1.49	.26	.12	1.48	.23	.11	1.36	
Age 2 ^b	.18	.07	0.86	.23	.09	1.11	.21	.08	1.05	
Age 3 ^c	.65**	.26**	3.15	.65**	.26**	3.21	.57**	.22**	2.81	
Age 4 ^d	.59	.12	1.60	.70	.15	1.93	.54	.11	1.50	
Trust (TR)				.27*	.19*	2.62	.17	.12	1.52	
Incivility (IN)							38**	22**	-2.92	
TR x IN							09	04	-0.47	
R ²	.06*			.10**			.14***			
ΔR^2				.07*			.11*			

Results of the multiple regression to test H2a

Table 5

Note. ^aAge 1: 30-39 years old , ^bAge 2: 40-49 years old, ^cAge 3: 50-59 years old, ^d Age 4: More than 60 years old. ^{**}p < .01; ^{*}p < .05.

Secondly, we tested hypothesis 2b, which states that e-mail incivility will moderate the relationship between organisational trust and dedication such that the positive effect of trust on dedication is weaker when e-mail incivility is high. The results of the analysis are shown in Table 6. In step 1 we added organisational trust as the predictor variable; then in step 2 we included e-mail incivility and the interaction term between organisational trust and e-mail incivility. Step 2 resulted in an overall significant model, $R^2 = .10$, F(3,171) = 6.61, p < .001 explaining that organisational trust and the moderating variable e-mail incivility can be effectively predictive for dedication. Furthermore it can be seen that the interaction term between organisational trust and e-mail incivility was not significant, $\beta = .09$, t(174) = 1.14, p = .254. Looking at the results, it can be concluded that H2b is not supported.

Work engagement: Dedication								
			Step 2					
	В	β	t	В	β	t		
Trust (TR)	.32**	.22**	2.95	.25*	.17*	2.25		
Incivility (IN)				41**	23**	-3.08		
TR x IN				.23	.09	1.14		
R ²	.05**			.10***				
ΔR^2				.09**				

Table 6Results of the multiple regression to test H2b

Note. ****p* < .001; ***p* < .01; **p* < .05.

Thirdly, we tested hypothesis 2c where it was foreseen that e-mail incivility will moderate the relationship between organisational trust and absorption such that the positive effect of trust on absorption is weaker when e-mail incivility is high. The results of the multiple regression analysis are shown in Table 7. We added in step 1 the control variables seniority and age into the model; then in step 2 we inserted organisational trust as the predictor; finally in step 3 we included e-mail incivility and the interaction term between organisational trust and e-mail incivility into the model. This process showed that the moderation between e-mail incivility and organisational trust was significant, $\beta = .16$, t(174) = 2.04, p = .043, which means that e-mail incivility is moderating the relationship between organisational trust and absorption.

			Work en	gagemen	t: Absorpti	ion			
		Step 1			Step 2			Step 3	
	В	β	t	В	β	t	В	β	t
Seniority 1 ^a	11	06	-0.62	08	04	-0.42	11	05	-0.60
Seniority 2 ^b	.17	.07	0.77	.21	.08	0.93	.24	.09	1.11
Seniority 3 ^c	.21	.10	0.91	.26	.12	1.14	.22	.10	0.97
Age 1 ^d	.13	.06	0.69	.12	.06	0.66	.08	.04	0.46
Age 2 ^e	.12	.05	0.53	.15	.06	0.67	.20	.08	0.90
Age 3 ^f	.33	.13	1.28	.31	.12	1.22	.21	.08	0.83
Age 4 ^g	12	03	-0.30	04	01	-0.10	11	02	-0.27
Trust (TR)				.22*	.16*	2.12	.18	.13	1.63
Incivility (IN)							42**	25**	-3.22
TR x IN							.41*	.16*	2.04
R^2	.05			.08			.15**		
ΔR^2				.03*			.10**		

Table 7		
Results of the multi	ole regression	to test H2c

Note. ^aSeniority 1: Less than 2 years, ^bSeniority 2: 6-10 years, ^cSeniority 3: More than 10 years. ^dAge 1: 30-39 years old, ^eAge 2: 40-49 years old, ^fAge 3: 50-59 years old, ^gAge 4: More than 60 years old.

^{**}*p* < .01; ^{*}*p* < .05.
Moreover, as can be seen in Figure 3, the positive effect of organisational trust on absorption is stronger for people who experience high e-mail incivility and not as expected weaker. In addition, the Figure shows, that if organisational trust is high, individuals exposed to high, medium and low e-mail incivility show higher absorption. Nevertheless, if organisational trust is low, absorption is higher for low and medium e-mail incivility than for individuals who are exposed to high e-mail incivility. It can be seen, that when organisational trust is low and e-mail incivility is high, employees have lower absorption. Therefore, Hypothesis H4c is just partially supported.



Figure 3. Moderating impact of e-mail incivility on organisational trust and absorption

Subsequently, the third hypotheses were tested. Firstly, we focused on H3a which states that, e-mail overload will moderate the relationship between organisational trust and vigor such that the positive effect of trust on vigor is stronger when e-mail overload is high. In step 1, we inserted the control variable age into the model; then, in step 2, we entered organisational trust, as the predictor; finally in step 3, we added e-mail overload as the moderator and the interaction term between organisational trust and e-mail overload into the model. As can be interpreted from Table 8, step 3 resulted in an overall significant model, $R^2 = .20$, F(7,167) = 6.13, p < .001, explaining that age 3, organisational trust and the moderating variable e-mail overload can be effectively predictive for vigor. Moreover, it can be seen that the interaction between organisational trust and e-mail overload was not significant, $\beta = -.03$, t(174) = -0.42, p = .676. Therefore, it can be concluded that H3a is not supported.

	Work engagement: Vigor										
		Step 1		Step 2			Step 3				
	В	β	t	В	β	t	В	β	t		
Age 1 ^a	.27	.13	1.49	.26	.12	1.48	.23	.11	1.40		
Age 2 ^b	.18	.07	0.86	.23	.09	1.11	.21	.08	1.09		
Age 3 ^c	.65**	.26**	3.15	.65**	.26**	3.21	.61**	.24**	3.15		
Age 4 ^d	.59	.12	1.60	.70	.15	1.93	.55	.11	1.59		
Trust (TR)				.27*	.19*	2.62	.21*	.15*	2.05		
Overload (OV)							48***	32***	-4.63		
TR x OV							08	03	-0.42		
R^2	.06*			.10**			.20***				
ΔR^2				.07*			.17***				

Table 8Results of the multiple regression to test H3a

Note. ^aAge 1: 30-39 years old , ^bAge 2: 40-49 years old, ^cAge 3: 50-59 years old, ^d Age 4: More than 60 years old. $p < .001; p^{*} < .01; p < .05$.

Thereupon, hypothesis H3b was tested. According to this hypothesis e-mail overload will moderate the relationship between organisational trust and dedication such that the positive effect of organisational trust on dedication is stronger when e-mail overload is high. In step 1 we inserted organisational trust as the predictor variable into our model, then in step 2, we added e-mail overload as our moderator and the interaction term between organisational trust and e-mail overload. Table 9 shows the results and it can be stated, that step 2 resulted in an overall significant model, $R^2 = .08$, F(3,171) = 5.09, p = .002 which means that organisational trust the interaction term between organisational trust and e-mail overload can be used to predict dedication. Furthermore it can be seen, that the interaction term between organisational trust and e-mail overload was not significant, $\beta = .02$, t(174) = -0.31, p = .756. Therefore it can be concluded, that H3b is not supported.

Table 9

Results of the multiple	e regression to test H3b
-------------------------	--------------------------

Work engagement: Dedication										
		Step 1		Step 2						
	В	β	t	В	β	t				
Trust (TR)	.32**	.22**	2.95	.28*	.20*	2.53				
Overload (OV)				28*	18*	-2.45				
TR x OV				06	02	-0.31				
R^2	.05**			.08**						
ΔR^2				.07*						

Note. ***p* < .01; **p* < .05.

The next step was to test H3c, which states that e-mail overload will moderate the relationship between organisational trust and absorption such that the positive effect of trust on absorption is stronger when e-mail overload is high. In step 1, we inserted the control variables seniority and age; then in step 2 we added organisational trust as the predictor; finally in step 3 we entered e-mail overload as the moderator and the interaction term between organisational trust and e-mail overload. The results are shown in Table 10, where it can be seen that the interaction term between organisational trust and e-mail overload was not significant, $\beta = .08$, t(174) = 1.03, p = .303. A further test without the control variables also resulted in a non-significant moderation. Therefore H3c is not supported.

Table 10

	Work engagement: Absorption											
		Step 1			Step 2		Step 3					
	В	β	t	В	β	t	В	β	t			
Seniority 1 ^a	11	06	-0.62	08	04	-0.42	20	10	-1.10			
Seniority 2 ^b	.17	.07	0.77	.21	.08	0.93	.12	.05	0.54			
Seniority 3 ^c	.21	.10	0.91	.26	.12	1.14	.22	.10	0.98			
Age 1 ^d	.13	.06	0.69	.12	.06	0.66	.10	.05	0.56			
Age 2 ^e	.12	.05	0.53	.15	.06	0.67	.13	.05	0.61			
Age 3 ^f	.33	.13	1.28	.31	.12	1.22	.27	.11	1.08			
Age 4 ^g	12	03	-0.30	04	01	-0.10	18	04	-0.45			
Trust (TR)				.22*	.16*	2.12	.21*	.16*	2.00			
Overload (OV)							38***	26***	-3.47			
TR x OV							.19	.08	1.03			
R^2	.05			.08			.14**					
ΔR^2				.03*			.07**					

Results of the multiple regression to test H3c

Note. ^aSeniority 1: Less than 2 years, ^bSeniority 2: 6-10 years, ^cSeniority 3: More than 10 years. ^dAge 1: 30-39 years old, ^eAge 2: 40-49 years old, ^fAge 3: 50-59 years old, ^gAge 4: More than 60 years old. ^{***}p < .001; ^{**}p < .01; ^{*}p < .05.

Finally, we tested our fourth hypotheses. We started with Hypothesis H4a which states that e-mail intensity will moderate the relationship between organisational trust and vigor such that the positive effect of trust on vigor is stronger when e-mail intensity is high. Therefore, in step 1 we added the control variable age into the model; then in step 2, we inserted organisational trust as the predictor; finally in step 3, we added e-mail intensity as the moderator and the interaction term between organisational trust and e-mail intensity into our model. The results are shown in Table 11, whereas step 3 shows an overall significant model, $R^2 = .12$, F(7,167) = 3.31, p = .003. It can be seen that only age 3 and organisational trust are predictors for vigor. Noticeable is, that the moderator e-mail intensity, $\beta = .13$, t(174) = 1.76, p = .081 has no significant effect on vigor. Moreover the interaction term between organisational

trust and e-mail intensity was not significant, $\beta = .09$, t(174) = 1.27, p = .206 even when testing without the control variable age. Therefore, according to the results H4a is not supported.

Work engagement: Vigor										
		Step 1		Step 2			Step 3			
	В	β	t	В	β	t	В	β	t	
Age 1 ^a	.27	.13	1.49	.26	.12	1.48	.28	.13	1.61	
Age 2 ^b	.18	.07	0.86	.23	.09	1.11	.19	.08	0.95	
Age 3 ^c	.65**	.26**	3.15	.65**	.26**	3.21	.64**	.26**	3.15	
Age 4 ^d	.59	.12	1.60	.70	.15	1.93	.71	.15	1.97	
Trust (TR)				.27*	.19*	2.62	.23*	.17*	2.26	
Intensity (INT)							.11	.13	1.76	
TR x INT							.13	.09	1.27	
R^2	.06*			.10**			.12**			
ΔR^2				.07*			.09			

Table 11Results of the multiple regression to test H4a

Note. ^aAge 1: 30-39 years old , ^bAge 2: 40-49 years old, ^cAge 3: 50-59 years old, ^d Age 4: More than 60 years old. ${}^{**}p < .01$; ${}^{*}p < .05$.

In a further step, H4b was tested. The hypothesis states, that e-mail intensity will moderate the relationship between organisational trust and dedication such that the positive effect of trust on dedication is stronger when e-mail intensity is high. In step 1 we inserted organisational trust as the predictor variable; then in step 2 we included e-mail intensity as our moderator and the interaction term between organisational trust and e-mail intensity. The results in Table 12 show, that the moderation between organisational trust and e-mail intensity was not significant, $\beta = .07$, t(174) = 0.91, p = .364. Therefore H4b is not supported.

Table 12

Results of the multiple	regression to test H4b
-------------------------	------------------------

Work engagement: Dedication									
		Step 1		Step 2					
	В	β	t	В	β	t			
Trust (TR)	.32**	.22**	2.95	.27*	.19*	2.55			
Intensity (INT)				.16*	.18*	2.48			
TR x INT				.10	.07	0.91			
R^2	.05**			.08**					
ΔR^2				.07*					

Note. ***p* < .01; **p* < .05.

Finally, H4c was tested. The hypothesis states, that e-mail intensity will moderate the relationship between organisational trust and absorption such that the positive effect of trust on absorption is stronger when e-mail intensity is high. In step 1, we added the control variables seniority and age; then in step 2 we included organisational trust as the predictor into our model; lastly in step 3, we inserted e-mail intensity as our moderator and the interaction term between organisational trust and e-mail intensity. The results of the multiple regression analysis are shown in Table 13. This process resulted in an significant model, $R^2 = .13$, F(10,164) = 2.51, p = .008, in which it can be seen, that only e-mail intensity and the interaction term between organisational trust and e-mail intensity can be used to predict absorption. Furthermore it can be seen, that the moderation between organisational trust and e-mail intensity was significant, $\beta = .15$, t(174) = 2.07, p = .040, which means that e-mail intensity moderates the relationship between organisational trust and absorption.

	Work engagement: Absorption										
		Step 1		Step 2			Step 3				
	В	β	t	В	β	t	В	β	t		
Seniority 1 ^a	11	06	-0.62	08	04	-0.42	03	02	-0.18		
Seniority 2 ^b	.17	.07	0.77	.21	.08	0.93	.20	.07	0.89		
Seniority 3 ^c	.21	.10	0.91	.26	.12	1.14	.29	.13	1.30		
Age 1 ^d	.13	.06	0.69	.12	.06	0.66	.17	.08	0.92		
Age 2 ^e	.12	.05	0.53	.15	.06	0.67	.11	.04	0.48		
Age 3 ^f	.33	.13	1.28	.31	.12	1.22	.30	.12	1.18		
Age 4 ^g	12	03	-0.30	04	01	-0.10	02	00	-0.05		
Trust (TR)				.22*	.16*	2.12	.17	.12	1.64		
Intensity (INT)							.17**	.20**	2.64		
TR x INT							.21*	.15*	2.07		
R^2	.05			.08			.13**				
ΔR^2				.03*			.08**				

Results	of the	multiple	rearession	to	test	H4c
1.0004/10	01 1110	manapio	10910001011	.0	1001	

Table 13

Note. ^aSeniority 1: Less than 2 years, ^bSeniority 2: 6-10 years, ^cSeniority 3: More than 10 years. ^dAge 1: 30-39 years old, ^eAge 2: 40-49 years old, ^fAge 3: 50-59 years old, ^gAge 4: More than 60 years old. ^{**}p < .01; ^{*}p < .05.

As can be seen in Figure 4, the positive effect of organisational trust on absorption is stronger for people who check their e-mails a lot before and after work (high e-mail intensity). This effect is also stronger for people who do this averagely (medium e-mail intensity). Therefore, the effect of organisational trust on absorption is the same at high and medium intensity, as can be seen from the parallel lines in Figure 4. Interestingly, the effect is negative for people who check their e-mails little before or after work. When organisational trust is low

and the intensity is low, individuals have higher absorption. For this reason, hypothesis H4c is supported.





5. Discussion and Conclusions

This study analysed how organisational trust could affect the three dimensions of employees' work engagement. Furthermore, it was examined to what extent characteristics of e-mail communication change the effect that organisational trust has on vigor, dedication and absorption. For this purpose, the e-mail characteristics e-mail incivility, e-mail overload and email intensity were used as moderator variables. The hypotheses tested were, firstly, that organisational trust in remote work has a positive effect on vigor, dedication and absorption. Furthermore, in the second step, it was tested whether e-mail incivility will moderate the relationship between organisational trust and vigor, dedication and absorption such that the positive effect of trust on the dimensions of work engagement is weaker when e-mail incivility is high. In the third step, the variable e-mail overload was used as a moderator. Therefore it was tested if e-mail overload will moderate the relationship between organisational trust and vigor, dedication and absorption such that the positive effect of trust on the dimensions of work engagement is stronger when e-mail overload is high. Finally, in the fourth step, it was tested whether e-mail intensity will moderate the relationship between organisational trust and vigor, dedication and absorption such that the positive effect of trust on the components of work engagement is stronger when e-mail intensity is high. While some of these variables have been tested in a similar way in previous studies, to the best of the author's awareness, no study has yet included three e-mail characteristics as moderators in the relationship between organisational trust and the dimensions of work engagement using the JD-R Model. Moreover, to the best of our knowledge, no study specifically focused on organisational trust for remote workers as a predictor variable for the three dimensions of work engagement.

First, a positive and significant relationship was found between organisational trust and vigor. Therefore, it can be said that created organisational trust in remote work leads to the worker having more energy at work, feeling physically strong and mentally alive (Shirom, 2010). In addition, the perception of given autonomy and responsibility while remote working will contribute to the individual's willingness to invest a lot of time in the work task and to fully commit to it (Bakker et al., 2008). Moreover, it can be stated that organisational trust is a job resource that is a predictor for vigor. These findings are consistent with the results of previous studies (e.g. Nešićm et al., 2020; Buckley, 2011; Richardson, 2010) in which various authors found that organisational trust contributes positively to the dimensions of work engagement.

Secondly, a positive and significant relationship was found between organisational trust and dedication. It implies that workers with organisational trust and a perceived good relationship with their supervisor when working remotely are more excited about their work and full of inspiration (Taris et al., 2010). Furthermore, this finding leads to the conclusion that individuals with organisational trust while remote working might find their work more meaningful and significant (Bakker et al., 2008) and are fully engaged to it (Henderson et al., 2017). In addition, organisational trust is shown to be positively related to individuals' pride in what they do and their willingness to overcome challenges (Taris et al., 2010). Also these findings are consistent with already established studies that often positively associate organisational trust with components of work engagement (e.g. Lin, 2010, Deutsch-Salamon & Robinson, 2008).

Thirdly, a positive and significant relationship was found between organisational trust and absorption, proving that organisational trust can contribute to employees being totally absorbed in their work and fully concentrating on the work to the point that even the time at work can be forgotten (Csikszentmihalyi, 1990). In addition, people who perceive a great level of autonomy and responsibility in remote work find the work interesting and want to spend a lot of time doing it (Bakker et al, 2008). Having organisational trust in general has a positive impact on the completion of work, as workers get into a work flow where they can hardly stop working (Csikszentmihalyi, 1990). However, the result also showed that the overall model is not significant, which may mean that organisational trust is not the only correct predictor of absorption. Therefore, future research should consider more predictors of work engagement or, more precisely, of absorption.

Since the aim of this study was to analyse whether characteristics of e-mails will moderate the relationship between organisational trust and the dimensions of work engagement, the variable e-mail incivility was considered first. Therefore in the first step the impact of organisational trust on vigor was investigated, with e-mail incivility acting as a moderator. We argued previously that according to the JD-R Model, job demands could moderate the relationship between job resources and work engagement. Therefore, we predicted, that if an employee experience a high amount of e-mail incivility is clustered into the hindrance demands that obstruct personal growth and goal achievement. Nevertheless, the result of this study showed that e-mail incivility is not moderating the relationship between organisational trust and vigor. Therefore, the results are not consistent with our expectation about hindrance demands and the JD-R model. Even when the control variables age were omitted, no significant could be due to the sample data collected and the potential biases caused by it, which is mentioned below in the limitations and future research section.

In a next step, we tested whether e-mail incivility moderates the relationship between organisational trust and dedication. Again, the results showed that e-mail incivility does not moderate the relationship as predicted and that our assumptions were therefore wrong. Viewing the results, it can be said, that e-mail incivility in this specific equation does not act as a job demand that moderates the effect of a job resource and dedication. The reason for this

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may be that experiencing e-mail incivility could be seen as a fact that is not socially desirable. Therefore, it is possible that the individuals who responded to the survey did not answer honestly and caused biases. In addition, it is possible that the measurement timing applied encouraged bias, as e-mail incivility can occur at different times.

Furthermore, the relationship between organisational trust and absorption was tested with e-mail incivility as a moderator. The results showed that e-mail incivility was found to moderate the relationship between the predictor variable organisational trust and absorption. As could be seen in Figure 3, it becomes clear that the higher the organisational trust is, the higher is the level of absorption when e-mail incivility is high. This result lets us conclude that the foreseen hypothesis is just partially supported and that organisational trust plays a major role when e-mail incivility is high. We expected, that e-mail incivility as a moderator will weaken the effect of organisational trust on the dimensions of work engagement due to the fact that e-mail incivility is clustered into the hindrance demands. Nevertheless it can be seen, that when organisational trust is low and e-mail incivility is high individuals have lower absorption. However, this statement needs to be considered carefully as the data collected does not represent enough experiences with low organisational trust and low absorption.

The second purpose of this study regarding e-mail overload was to analyse in depth the impact that organisational trust would have on the dimensions of work engagement with e-mail overload playing the role of a moderator. It was hypothesised that, e-mail overload will moderate the relationship between organisational trust and vigor, dedication and absorption such that the positive effect of trust on the components of work engagement are stronger when e-mail overload is high. However, the results showed that no moderating effect was evident for any of the three hypotheses related to the moderation of e-mail overload indicating that our expectations were not met. The reason why the moderation is not significant could be due to the sample data collected. This becomes clear when looking at the detailed data collection which show that low values for trust are missing in the total sample and also low values for engagement, which indicates that the respondents have no experience with low organisational trust and very low engagement. Therefore, significant moderation could perhaps occur in a different sample.

Finally, the moderating variable e-mail intensity was analysed and related to the relationship of organisational trust and the components of work engagement. It was assumed that e-mail intensity will moderate the relationship between organisational trust and vigor, dedication and absorption. However, the results showed that there was only a moderating effect of e-mail intensity on the relationship between organisational trust and absorption. The effect of high organisational trust on absorption was found to be stronger for employees exposed to high or moderate e-mail intensity. Figure 4 shows that when e-mail intensity is high and organisational trust is absent, people still have a medium level of absorption, whereas

when organisational trust is medium, absorption increases. At high trust, absorption rises even more when e-mail intensity is high. This may be because people who experience high e-mail intensity but no organisation trust only work on the e-mails that are necessary but do not do anything beyond that. Whereas people who experience a lot of organisational trust show very high absorption in order to give something back to the company. Surprisingly, it was also found that the relationship between organisational trust and absorption weakens for people who experience little e-mail intensity. With low organisational trust, those individuals have a higher absorption then with high organisational trust. One reason for this could be that individuals with low e-mail intensity and high organisational trust receive few e-mails and are therefore bored and show less absorption because the company trusts these people anyway. With low trust, on the other hand, individuals might assume that they have to do something extra in order to gain the trust of the organisation based on their work engagement. This assumption is also confirmed by Hill & Weiner's (2003) research, which found that in the new culture of remote working, performance is measured by productivity and the overall results. Nevertheless the significant moderation confirms the research from Bakker & Demerouti (2008) which explains that the more job challenges an employee experiences, the greater the motivational role of the job resources on work engagement, as it can support the achievement of goals.

In sum, the results of this study showed that in total four hypotheses could be fully confirmed. These four hypotheses made it clear that organisational trust is positively related to vigor, dedication and absorption and that e-mail intensity is moderating the relationship between organisational trust and absorption, such that the positive effect of organisational trust on absorption is stronger when e-mail incivility or intensity is high. Moreover one hypothesis of this research is partially supported as we found that e-mail incivility is moderating the relationship between organisational trust and absorption. Nevertheless we expected that e-mail incivility will weaken the effect of organisational trust on absorption when e-mail incivility is high which was not the case. The study showed that the relationship became stronger. Moreover, it is interesting to note that there were only moderation effects with the dependent variable absorption.

5.1. Theoretical Contributions

Firstly, and although organisational trust has already been linked to work engagement (e.g. Lin, 2010; Richardson, 2010), the conceptualisation of organisational trust particular for remote working as the predictor of the model was a contribution to the framework of organisational trust consequences. In fact, some studies have already analysed the outcomes associated to organisational trust and the work engagement of employees (e.g. Nešićm et al., 2020; Deutsch-Salamon & Robinson, 2008), however none of those have examined the

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relationship between organisational trust specifically for remote workes and the three dimensions of work engagement (vigor, dedication and absorption). Therefore, the first theoretical contribution was, that we found a positive and significant relationship between organisational trust in remote working and vigor, dedication and absorption. These results have provided the opportunity to demonstrate that a good level of organisational trust has a positive impact on the employee and the organisation. These positive impacts are primarily related to a positive state of mind characterised by vigor, dedication and absorption that an employee has at work if the company fosters a culture of trust in remote working arrangements. Also, these results are in line with already established research where organisational trust in general and not specifically for remote workers have been positively linked to work engagement (e.g. Buckley, 2011).

Adding to this, all established studies on organisational trust and work engagement have not included possible moderator effects considering e-mail characteristics integrated in work conditions in their models, but rather focused on other factors such as authentic leadership or organisational climate as potential moderator effects. In this study, however, we concentrated on adding three moderator variables representing job demands, e-mail incivility, e-mail overload and e-mail intensity, to see how these affect the strength of the relationship between organisational trust and vigor, dedication and absorption. In this way, we extended the job demands resources model and found two moderating effects. However, the results also showed that e-mail overload has no effect at all on the relationship between organisational trust and vigor, dedication and absorption, contrary to our expectations in which we predicted that e-mail overload will moderate the relationship between organisational trust and vigor, dedication and absorption to the extent that the relationship between organisational trust and the dimensions of work engagement becomes stronger with high e-mail overload. However, multiple regression analysis showed that e-mail incivility moderates the relationship between organisational trust and absorption. The same effect was also found for e-mail intensity and absorption. For both moderator effects, the relationship between organisational trust and absorption became stronger for high e-mail incivility and high e-mail intensity. Therefore, these results are significant because they contribute to the framework of organisational research.

5.2. Practical Implications

This study focused firstly on the issue of organisational trust while remote working and its impact on the dimensions of employee's work engagement. We found that a high level of trust in the organisation while remote working can contribute to an employee's positive view of his or her work and a fulfilling work attitude defined by vigor, dedication and absorption. However, organisational trust not only has a positive effect on work engagement, but also promotes

other positive work outcomes as job satisfaction (Matzler & Renzl, 2006), increased performance (Orlitzky & Frenkel, 2007) and can shape the attitude an employee has towards his or her work (Aryee, Budhwar & Chen, 2002). Also, by creating a trusting culture during remote work, companies can reduce the likelihood of negative health consequences as job burnout for its employees, as organisational trust leads to individuals being more energetic, positive and enthusiastic at work. In addition, organisational trust in remote work leads to workers feeling a certain autonomy and responsibility, which in turn can have a positive effect on the work results and the workers themselves. Conversely, this means that companies should focus on promoting and building organisational trust in order to generate such desirable positive outcomes. This can be achieved by setting guidelines for accepted behaviours, rules and routines (Bachmann & Inkpen, 2011).

Furthermore, this study found that the relationship between organisational trust and absorption is moderated by e-mail incivility and e-mail intensity. In fact, it was found that when e-mail incivility is high and organisational trust is low, employees show low absorption. In contrast, when trust is high, employees show high absorption. This result in turn means that organisations, or the human resources department in particular, need to pay special attention to creating a culture of trust in order to enhance the level of absorption. Organisational trust can therefore ensure that even with a high level of e-mail incivility, employees still show a high level of work engagement. In addition, also the moderation with e-mail intensity has shown that organisational trust plays a significant role, because when e-mail intensity is high and trust in remote work is also high, employees show higher absorption. For this reason, we agree with the study by Kowalski & Swanson (2005), which states that perceived organisational trust is the biggest driver of success in remote work. Therefore, organisations should promote a culture of trust in remote working to increase work engagement, even when challenges or hindrances arise.

5.3. Limitations and Future Research

Despite the scientific contribution, this study is not without limitations that need to be paid attention to. First, this research is based on a convenience sample, as this sampling method has made it feasible and easy to collect data. However, this data collection method is often associated with biases, as the sample could tend to be a poor representation of the population (Mackey & Gass, 2005). Moreover, convenience samples are based on a voluntary participation, which makes it possible that this study attracted participants who are highly engaged and interested in the topic and would therefore prefer specific findings (Moore, 2001). Furthermore, this method of data collection is often associated with outliers, which was also the case in this study. Nevertheless, the convenience sampling method offers some

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advantages over other sampling methods and was therefore used in this study. Thus, in order to control and evaluate these biases, Sousa, Zauszniewski & Musil (2004) recommend that researchers with admission to population data should compare the convenience sample with the population using percentages. For this purpose and further research, the method of Cochran (1977) is suggested, in which the variability is measured to identify if there are commonalities among these two data records.

Another limitation that could cause biases in this study relates to the usage of the shortened scale by Grant et al. (2019) concerning the measurement of the variable organisational trust. The observed Cronbach's alpha of this scale was 0.51, which according to Nunally (1978) does not represent adequate reliability. More specifically, it shows that the scale is only 51% reliable and 49% may be considered unreliable. Nunally (1978) recommends that a minimum value of 0.70 must be achieved to ensure reliability. However, since the item number of the scale used in this study was very short and consisted of only three items, Panayide's (2013) stated that the reason behind this low cronbach's alpha value might be due to the low number of questions. Moreover, Schmitt (1996) added that despite this, smaller values of Cronbach's alpha scales can also be used. However, Hinkin, Tracey & Enz (1997) disagree and recommend a scale that consists of at least 4-6 items to be qualified. Another issue concerns the relative novelty of the scale. The authors Grant et al. (2019) have pointed out that their developed scale needs to be further tested, which was done by this study. Therefore, for future studies, we recommend to further test the scale of Grant et al. (2019) or to use a different scale to measure the variable organisational trust in order to generate reliability. For this purpose, the model of Tzafrir & Dolan (2004) could be applied to measure organisational trust.

A further potential source of limitations in this study could be the common methodological biases mentioned by Podsakoff, MacKenzie, Lee and Podsakoff (2003). These self-reported biases could have been caused by the fact that the participants in the study remained identical for the predictor, moderator and outcome variables. This might have resulted in the presence of artifactual covariance between the variables. These self-reported biases may have arisen from the so-called consistency motif, which states that respondents often try to be consensual in their answers. Therefore, it is possible that individuals look for similarities in the questions and consequently respond uniformly to different questions. Furthermore, a method bias called implicit theories or illusory correlations could also have arisen from the fact that respondents already have theories about the correlations between each variables and therefore answer differently than they would if they had no illusions about the relationship. Therefore, in order to avoid these potential problems, it would have been useful to have surveyed different people for the variables to prevent these common method effects. For these reasons, we suggest that future studies measuring similar variables should ensure that they use different sources for

each variable in order to collect study data. One way to eliminate this bias would be, for example, the proposal to measure the variable trust in the organisation through the subordinates and the dependent variable work engagement through the managers.

Moreover, another very important point mentioned by Podsakoff et al. (2003) that can contribute to biases is the so-called social desirability aspect. In this context, the study participants try to present themselves positively and therefore answer in such a way that the answer leads to social confirmation and acceptance, although the respondents would actually have a different opinion on several topics. This in turn can lead to the actual relationship between variables not being recognised correctly and therefore distort the study results. Moreover, it is likely to have happened in this study as well, since the author of this study works in the human resources department of the pharmaceutical company where, among other sources, a large proportion of the responses for this study were generated. For this reason, participants may not have answered truthfully to company-related questions (e.g. about trust in the organisation or work engagement) to ensure that they would not be harmed and to present themselves in a positive light, even if we announced a top secret use of the data. This is also supported by Lauritsen (2019) who points out in his article that employees are often afraid to tell the truth in a study that could relate to the workplace. Nevertheless, we introduced a clause guaranteeing complete confidentiality, which may have created a degree of trust and reduced bias, but may still not have created enough trust for some participants to answer truthfully. Therefore, for further studies, we suggest to commission a neutral person to collect the data. In addition, a possible step to increase truthful responses, according to Podsakoff et al. (2003), would have been a statement informing respondents to answer completely honestly, as there are no correct or incorrect answers.

Another bias could be due to the measurement time. In this study, the predictor variables and the criterion variables were measured at the same time, which according to Podsakoff et al. (2003) is a reason for biases, as systematic covariation can be demonstrated. This covariation may arise from the fact that it is easier for respondents to apply implicit theories as mentioned above and that it is more likely that the answers given are stored in short-term memory. Consequently, for future studies, we propose that the various variables should be measured at different times in order to limit these biases (Podsakoff et al., 2003).

In addition, according to Baumgartner & Steenkamp (2001), there are other potential risks for biases in the results that may also have influence this study. One of the examples the authors give is the likelihood that people often simply agree or disagree with a question without considering the content. Moreover, they also mention the danger that respondents often simply select the middle of the scale and thus therefore influence the accuracy of the results. Similarly, in this study, a scale was chosen where it was easy to choose the middle as participants could choose from 4 response options (Measurement of e-mail intensity).

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Therefore, it is possible that some chose the middle on this measure and in order to avoid this bias, it is suggested that odd-numbered scales be used in future studies to make it more difficult to choose the middle and to allow neutral responses to be chosen (Morrel-Samuels, 2002).

Furthermore, it would have been interesting to include other variables in the research model, as organisational support, for example, is a big factor that can influence organisational trust while remote working (Chen et al., 2005). Out of this reason, it is recommended that influencing variables such as organisational support should be included in the future in order to understand the interrelationships. In addition, it would have been useful to examine how organisation trust affects other variables of work outcomes, such as work performance or work culture, as we consider it important to highlight these consequences in order to show the management or the human resources department what positive (or negative) effects fostering trust in the organisation while remote working can have for a company. Furthermore, it would also be interesting to investigate whether organisational trust has different effects at different organisational levels. For example, trust in one's own department could have a stronger effect than general trust in the organisation as such, due to the greater proximity and importance for one's own work.

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Annexes

Annex A. Residual statistic, Correlations, Model summary and White test for each model

Model 1: Testing of H1a

Residuals Statistics ^a										
	Minimum	Maximum	Mean	Std. Deviation	Ν					
Predicted Value	4.41	6.01	5.17	0.29	175					
Residual	-2.28	1.96	.00	0.89	175					
Std. Predicted Value	-2.55	2.86	.00	1.00	175					
Std. Residual	-2.53	2.17	.00	0.99	175					

^aDependent Variable: Vigor

	Correlations		
		Unstandardized Residual	Trust
Unstandardized Residual	Pearson Correlation	1	.00
	Sig. (2-tailed)		1.000
	Ν	175	175
Trust	Pearson Correlation	.00	1
	Sig. (2-tailed)	1.000	
	Ν	175	175

	Model Summary ^c										
	Change Statistics										
Model	R	R	Adjusted	Std. Error	R	F	df	df2	Sig. F	Durbin	
		Square	R Square	of the	Square	Change	1		Change	Watson	
		-	-	Estimate	Change	-			-		
1	.25ª	.06	.04	.92	.06	2.80	4	170	.028		
2	.31 ^b	.10	.07	.90	.04	6.88	1	169	.010	1.97	

^aPredictors: Age

^bPredictors: Age, Trust

^cDependent Variable: Vigor

White Test for Heteroskedasticity ^{a,b,c}							
Chi-Square	Df	Sig.					
2.25	2	.324					

^aDependant Variable: Vigor

^bTests the null hypothesis that the variance of the errors does not depend on the values of the independent variables

°Design: Trust

Model 2: Testing of H1b

Residuals Statistics ^a								
	Minimum	Maximum	Mean	Std. Deviation	Ν			
Predicted Value	4.74	5.79	5.34	0.21	175			
Residual	-2.70	1.73	.00	0.95	175			
Std. Predicted Value	-2.81	2.10	.00	1.00	175			
Std. Residual	-2.83	1.82	.00	1.00	175			

^aDependent Variable: Dedication

	Correlations		
		Unstandardized Residual	Trust
Unstandardized Residual	Pearson Correlation	1	.00
	Sig. (2-tailed)		1.000
	Ν	175	175
Trust	Pearson Correlation	.00	1
	Sig. (2-tailed)	1.000	
	Ν	175	175

	Model Summary ^b											
	Change Statistics											
Model	R	R	Adjusted	Std. Error	R	F	df	df2	Sig. F	Durbin		
		Square	R Square	of the	Square	Change	1		Change	Watson		
				Estimate	Change							
1	.22ª	.05	.04	.96	.05	8.71	1	173	.004	1.77		
aPred	ictors:	Trust										

^bDependent Variable: Dedication

White Test for Heteroskedasticity ^{a,b,c}							
Chi-Square	Df	Sig.					
.094	2	.954					

^aDependant Variable: Dedication

^bTests the null hypothesis that the variance of the errors does not depend on the values of the independent variables

°Design: Trust

Model 3: Testing of H1c

Residuals Statistics ^a									
	Minimum	Maximum	Mean	Std. Deviation	Ν				
Predicted Value	4.35	5.58	5.02	0.26	175				
Residual	-2.80	2.01	.00	0.90	175				
Std. Predicted Value	-2.63	2.18	.00	1.00	175				
Std. Residual	-3.04	2.19	.00	.98	175				

^aDependent Variable: Absorption

	Correlations		
		Unstandardized Residual	Trust
Unstandardized Residual	Pearson Correlation	1	.00
	Sig. (2-tailed)		1.000
	Ν	175	175
Trust	Pearson Correlation	.00	1
	Sig. (2-tailed)	1.000	
	Ν	175	175

	Model Summary ^d											
Change Statistics												
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df 1	df2	Sig. F Change	Durbin Watson		
1	.23ª	.05	.01	.93	.05	1.28	7	167	.265			
2	.28 ^b	.08	.03	.92	.03	4.47	1	166	.036	1.90		

^aPredictors: Seniority, Age ^bPredictors: Seniority, Age, Trust ^cDependent Variable: Absorption

White Test for Heteroskedasticity ^{a,b,c}							
Chi-Square	df	Sig.					
.031	2	.985					

^aDependant Variable: Absorption

^bTests the null hypothesis that the variance of the errors does not depend on the values of the independent variables

^cDesign: Trust

Model 4: Testing of H2a

Residuals Statistics ^a									
	Minimum	Maximum	Mean	Std. Deviation	Ν				
Predicted Value	4.45	6.19	5.17	0.36	175				
Residual	-2.46	1.79	.00	0.87	175				
Std. Predicted Value	-2.01	2.87	.00	1.00	175				
Std. Residual	-2.77	2.01	.00	0.98	175				

^aDependent Variable: Vigor

	Correla	ations		
		Unstandardized	Trust	E-Mail
		Residual		Incivility
Unstandardized Residual	Pearson Correlation	1	.00	.00
	Sig. (2-tailed)		1.000	1.000
	Ν	175	175	175
Trust	Pearson Correlation	.00	1	283**
	Sig. (2-tailed)	1.000		<.001
	Ν	175	175	175
E-Mail Incivility	Pearson Correlation	.00	283**	1
	Sig. (2-tailed)	1.000	<.001	
	Ν	175	175	175

Note. **Correlation is significant at the 0.01 level (2-tailed)

	Model Summary ^d										
							C	hange	Statistics		
Model	R	R	Adjusted	Std. Error	R	F	df	df2	Sig. F	Durbin	
		Square	R Square	of the	Square	Change	1		Change	Watson	
		-	-	Estimate	Change	-			-		
1	.25ª	.06	.04	.92	.06	2.80	4	170	.028		
2	.31 ^b	.10	.07	.90	.04	6.88	1	169	.010		
3	.38 ^c	.14	.11	.89	.05	4.40	2	167	.014	1.93	

^aPredictors: Age

^bPredictors: Age, Trust ^cPredictors: Age, Trust, E-Mail Incivility, TR x IN

^dDependent Variable: Vigor

White Test for Heteroskedasticity ^{a,b,c}						
Chi-Square df Sig.						
21.87	17	.190				

^aDependant Variable: Vigor

^bTests the null hypothesis that the variance of the errors does not depend on the values of the independent variables

^cDesign: Trust, E-Mail Incivility, Age, TR x IN

Model 5: Testing of H2b

Residuals Statistics ^a									
Minimum Maximum Mean Std. Deviation N									
Predicted Value	4.43	5.78	5.34	0.31	175				
Residual	-2.53	1.86	.00	0.92	175				
Std. Predicted Value	-2.90	1.41	.00	1.00	175				
Std. Residual	-2.72	2.00	.00	1.00	175				

^aDependent Variable: Dedication

	Correla	ations		
		Unstandardized Residual	Trust	E-Mail Incivility
Unstandardized Residual	Pearson Correlation	1	.00	.00
	Sig. (2-tailed)		1.000	1.000
	Ν	175	175	175
Trust	Pearson Correlation	.00	1	283**
	Sig. (2-tailed)	1.000		<.001
	Ν	175	175	175
E-Mail Incivility	Pearson Correlation	.00	283**	1
	Sig. (2-tailed)	1.000	<.001	
	Ν	175	175	175

Note. **Correlation is significant at the 0.01 level (2-tailed)

	Model Summary ^c											
Change Statistics												
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df 1	df2	Sig. F Change	Durbin Watson		
1	.22ª	.05	.04	.96	.05	8.71	1	173	.004			
2	.32 ^b	.10	.09	.93	.06	5.33	2	171	.006	1.75		

^aPredictor: Trust

^bPredictors: Trust, E-mail incivility, TR x IN

^cDependent Variable: Dedication

White Test for Heteroskedasticity ^{a,b,c}						
Chi-Square	df	Sig.				
0.95	5	.967				

^aDependant Variable: Dedication

^bTests the null hypothesis that the variance of the errors does not depend on the values of the independent variables

°Design: Trust, E-Mail Incivility, Seniority, Age, TR x IN

Model 6: Testing of H2c

Residuals Statistics ^a									
Minimum Maximum Mean Std. Deviation N									
Predicted Value	4.07	5.99	5.02	0.36	175				
Residual	-2.28	1.98	.00	0.86	175				
Std. Predicted Value	-2.63	2.67	.00	1.00	175				
Std. Residual	-2.57	2.23	.00	0.97	175				

^aDependent Variable: Absorption

	Correla	ations		
		Unstandardized	Trust	E-Mail
		Residual		Incivility
Unstandardized Residual	Pearson Correlation	1	.00	.00
	Sig. (2-tailed)		1.000	1.000
	Ν	175	175	175
Trust	Pearson Correlation	.00	1	283**
	Sig. (2-tailed)	1.000		<.001
	Ν	175	175	175
E-Mail Incivility	Pearson Correlation	.00	283**	1
	Sig. (2-tailed)	1.000	<.001	
	Ν	175	175	175

Note. **Correlation is significant at the 0.01 level (2-tailed)

	Model Summary ^d											
	Change Statistics											
Model	R	R	Adjusted	Std. Error	R	F	df	df2	Sig. F	Durbin		
		Square	R Square	of the	Square	Change	1		Change	Watson		
				Estimate	Change							
1	.23ª	.05	.01	.93	.05	1.28	7	167	.265			
2	.28 ^b	.08	.03	.92	.03	4.47	1	166	.036			
3	.39°	.15	.10	.89	.07	7.15	2	164	.001	1.86		
		0	A									

^aPredictors: Seniority, Age

^bPredictors: Seniority, Age, Trust

 $^{\mathrm{c}}\textsc{Predictors:}$ Seniority, Age, Trust, E-Mail Incivility, TR x IN

^dDependent Variable: Absorption

White Test for Heteroskedasticity ^{a,b,c}						
Chi-Square	df	Sig.				
37.37	35	.361				

^aDependant Variable: Absorption

^bTests the null hypothesis that the variance of the errors does not depend on the values of the independent variables

^cDesign: Trust, E-Mail Incivility, Seniority, Age, TR x IN

Model 7: Testing of H3a

Residuals Statistics ^a									
Minimum Maximum Mean Std. Deviation N									
Predicted Value	4.07	6.26	5.17	0.42	175				
Residual	-2.24	2.20	.00	0.84	175				
Std. Predicted Value	-2.59	2.57	.00	1.00	175				
Std. Residual	-2.63	2.57	.00	0.98	175				

^aDependent Variable: Vigor

	Correla	ations		
		Unstandardized	Trust	E-Mail
		Residual		Overload
Unstandardized Residual	Pearson Correlation	1	.00	.00
	Sig. (2-tailed)		1.000	1.000
	Ν	175	175	175
Trust	Pearson Correlation	.00	1	09
	Sig. (2-tailed)	1.000		.223
	Ν	175	175	175
E-Mail Overload	Pearson Correlation	.00	09	1
	Sig. (2-tailed)	1.000	.223	
	Ν	175	175	175

	Model Summary ^d										
Change Statistics											
Model	R	R	Adjusted	Std. Error	R	F	df	df2	Sig. F	Durbin	
		Square	R Square	of the	Square	Change	1		Change	Watson	
		-	-	Estimate	Change	_			-		
1	.25ª	.06	.04	.92	.06	2.80	4	170	.028		
2	.31 ^b	.10	.07	.90	.04	6.88	1	169	.010		
3	.45°	.20	.17	.86	.11	11.10	2	167	<.001	2.08	
aPred	^a Predictors: Age										
⁵Pred	ictors:	Age, Trust									

°Predictors: Age, Trust, E-Mail Overload, TR x OV

^dDependent Variable: Vigor

White Test for Heteroskedasticity ^{a,b,c}							
Chi-Square df Sig.							
19.11	17	.322					

^aDependant Variable: Vigor

^bTests the null hypothesis that the variance of the errors does not depend on the values of the independent variables

^cDesign: Trust, E-Mail Overload, Age, TR x OV

Model 8: Testing of H3b

Residuals Statistics ^a									
Minimum Maximum Mean Std. Deviation N									
Predicted Value	4.77	6.05	5.34	0.28	175				
Residual	-2.53	1.64	.00	0.94	175				
Std. Predicted Value	-2.05	2.53	.00	1.00	175				
Std. Residual	-2.68	1.74	.00	0.99	175				

^aDependent Variable: Dedication

	Correla	ations		
		Unstandardized	Trust	E-Mail
		Residual		Overload
Unstandardized Residual	Pearson Correlation	1	.00	.00
	Sig. (2-tailed)		1.000	1.000
	Ν	175	175	175
Trust	Pearson Correlation	.00	1	09
	Sig. (2-tailed)	1.000		.223
	Ν	175	175	175
E-Mail Overload	Pearson Correlation	.00	09	1
	Sig. (2-tailed)	1.000	.223	
	Ν	175	175	175

	Model Summary ^c											
Change Statistics												
Model	R	R	Adjusted	Std. Error	R	F	df	df2	Sig. F	Durbin		
		Square	R Square	of the	Square	Change	1		Change	Watson		
				Estimate	Change							
1	.22ª	.05	.04	.96	.05	8.71	1	173	.004			
2	.29 ^b	.08	.07	.94	.03	3.17	2	171	.044	1.86		

^aPredictor: Trust

^bPredictors: Trust, E-mail Overload, TR x OV

^cDependent Variable: Dedication

White Test for Heteroskedasticity ^{a,b,c}								
Chi-Square	df	Sig.						
1.26	5	.939						

^aDependant Variable: Dedication

^bTests the null hypothesis that the variance of the errors does not depend on the values of the independent variables

^cDesign: Trust, E-Mail Overload, TR x OV

Model 9: Testing of H3c

Residuals Statistics ^a									
Minimum Maximum Mean Std. Deviation N									
Predicted Value	4.19	5.80	5.02	0.35	175				
Residual	-2.47	2.13	.00	0.87	175				
Std. Predicted Value	-2.39	2.23	.00	1.00	175				
Std. Residual	-2.77	2.39	.00	0.97	175				

^aDependent Variable: Absorption

	Correla	ations		
		Unstandardized	Trust	E-Mail
		Residual		Overload
Unstandardized Residual	Pearson Correlation	1	.00	.00
	Sig. (2-tailed)		1.000	1.000
	Ν	175	175	175
Trust	Pearson Correlation	.00	1	09
	Sig. (2-tailed)	1.000		.223
	Ν	175	175	175
E-Mail Overload	Pearson Correlation	.00	09	1
	Sig. (2-tailed)	1.000	.223	
	Ν	175	175	175

Model Summary ^d											
	Change Statistics										
Model	R	R	Adjusted	Std. Error	R	F	df	df2	Sig. F	Durbin	
		Square	R Square	of the	Square	Change	1		Change	Watson	
		-	-	Estimate	Change	-			-		
1	.23ª	.05	.01	.93	.05	1.28	7	167	.265		
2	.28 ^b	.08	.03	.92	.03	4.47	1	166	.036		
3	.38°	.14	.09	.89	.07	6.22	2	164	.002	1.91	
aDrod	intore	Conjority /	A de								

^aPredictors: Seniority, Age
^bPredictors: Seniority, Age, Trust
^cPredictors: Seniority, Age, Trust, E-Mail Overload, TR x OV
^dDependent Variable: Absorption

White Test for Heteroskedasticity ^{a,b,c}							
Chi-Square	df	Sig.					
26.63	35	.844					

^aDependant Variable: Absorption

^bTests the null hypothesis that the variance of the errors does not depend on the values of the independent variables

^cDesign: Trust, E-Mail Overload, Seniority, Age, TR x OV

Model 10: Testing of H4a

Residuals Statistics ^a									
Minimum Maximum Mean Std. Deviation N									
Predicted Value	4.62	6.02	5.17	0.33	175				
Residual	-2.30	2.12	.00	0.88	175				
Std. Predicted Value	-1.66	2.58	.00	1.00	175				
Std. Residual	-2.56	2.36	.00	0.98	175				

^aDependent Variable: Vigor

	Correla	ations						
	Unstandardized							
		Residual		Intensity				
Unstandardized Residual	Pearson Correlation	1	.00	.00				
	Sig. (2-tailed)		1.000	1.000				
	Ν	175	175	175				
Trust	Pearson Correlation	.00	1	.14				
	Sig. (2-tailed)	1.000		.068				
	Ν	175	175	175				
E-Mail Intensity	Pearson Correlation	.00	.14	1				
	Sig. (2-tailed)	1.000	.068					
	Ν	175	175	175				

Model Summary ^d										
	Change Statistics									
Model	R	R	Adjusted	Std. Error	R	F	df	df2	Sig. F	Durbin
		Square	R Square	of the	Square	Change	1		Change	Watson
		-	-	Estimate	Change	-			-	
1	.25ª	.06	.04	.92	.06	2.80	4	170	.028	
2	.31 ^b	.10	.07	.90	.04	6.88	1	169	.010	
3	.35°	.12	.09	.90	.02	2.22	2	167	.111	1.99
		•								

^aPredictors: Age, Trust ^bPredictors: Age, Trust ^cPredictors: Age, Trust, E-Mail Intensity, TR x INT ^dDependent Variable: Vigor

White Test for Heteroskedasticity ^{a,b,c}				
Chi-Square	df	Sig.		
16.37	17	.498		

^aDependant Variable: Vigor

^bTests the null hypothesis that the variance of the errors does not depend on the values of the independent variables

^cDesign: Trust, E-Mail Intensity, Age, TR x INT

Model 11: Testing of H4b

Residuals Statistics ^a							
	Minimum	Maximum	Mean	Std. Deviation	Ν		
Predicted Value	4.85	6.08	5.34	0.28	175		
Residual	-2.73	1.95	.00	0.93	175		
Std. Predicted Value	-1.73	2.62	.00	1.00	175		
Std. Residual	-2.90	2.07	.00	0.99	175		

^aDependent Variable: Dedication

	Correla	ations		
		Unstandardized	Trust	E-Mail
		Residual		Intensity
Unstandardized Residual	Pearson Correlation	1	.00	.00
	Sig. (2-tailed)		1.000	1.000
	Ν	175	175	175
Trust	Pearson Correlation	.00	1	.14
	Sig. (2-tailed)	1.000		.068
	Ν	175	175	175
E-Mail Intensity	Pearson Correlation	.00	.14	1
	Sig. (2-tailed)	1.000	.068	
	Ν	175	175	175

	Model Summary ^c									
							C	hange	Statistics	
Model	R	R	Adjusted	Std. Error	R	F	df	df2	Sig. F	Durbin
		Square	R Square	of the	Square	Change	1		Change	Watson
		•		Estimate	Change	C			Ū	
1	.22ª	.05	.04	.96	.05	8.71	1	173	.004	
2	.29 ^b	.08	.07	.94	.04	3.35	2	171	.037	1.76

^aPredictor: Trust

^bPredictors: Trust, E-Mail Intensity, TR X INT

^cDependent Variable: Dedication

White Test for Heteroskedasticity ^{a,b,c}					
Chi-Square	df	Sig.			
0.58	5	.989			

^aDependant Variable: Dedication

^bTests the null hypothesis that the variance of the errors does not depend on the values of the independent variables

^cDesign: Trust, E-Mail Intensity, TR x INT

Model 12: Testing of H4c

Residuals Statistics ^a							
	Minimum	Maximum	Mean	Std. Deviation	N		
Predicted Value	4.40	5.97	5.02	0.34	175		
Residual	-2.78	2.04	.00	0.87	175		
Std. Predicted Value	-1.83	2.79	.00	1.00	175		
Std. Residual	-3.10	2.27	.00	0.97	175		

^aDependent Variable: Absorption

	Correla	ations		
		Unstandardized Residual	Trust	E-Mail Intensity
Unstandardized Residual	Pearson Correlation	1	.00	.00
	Sig. (2-tailed)		1.000	1.000
	Ν	175	175	175
Trust	Pearson Correlation	.00	1	.14
	Sig. (2-tailed)	1.000		.068
	Ν	175	175	175
E-Mail Intensity	Pearson Correlation	.00	.14	1
	Sig. (2-tailed)	1.000	.068	
	Ν	175	175	175

				Model	Summary	d					
							C	hange	Statistics		
Model	R	R	Adjusted	Std. Error	R	F	df	df2	Sig. F	Durbin	
		Square	R Square	of the	Square	Change	1		Change	Watson	
		-	-	Estimate	Change	_			_		
1	.23ª	.05	.01	.93	.05	1.28	7	167	.265		
2	.28 ^b	.08	.03	.92	.03	4.47	1	166	.036		
3	.36°	.13	.08	.90	.06	5.39	2	164	.005	1.93	

^aPredictors: Seniority, Age

^bPredictors: Seniority, Age, Trust ^cPredictors: Seniority, Age, Trust, E-Mail Intensity, TR x INT

^dDependent Variable: Absorption

White Test for Heteroskedasticity ^{a,b,c}					
Chi-Square	df	Sig.			
26.51	35	.848			

^aDependant Variable: Absorption

^bTests the null hypothesis that the variance of the errors does not depend on the values of the independent variables

^cDesign: Trust, E-Mail Intensity, Seniority, Age, TR x INT

Test of Normality							
	Kolmo	gorov-Smi	rnov ^a				
	Statistic df Sig. Statistic				df	Sig.	
E-Mail Intensity	.20	175	<.001	.84	175	<.001	
E-Mail Overload	.11	175	<.001	.97	175	.002	
E-Mail Incivility	.09	175	.002	.98	175	.006	
Trust	.11	175	<.001	.97	175	.001	
Vigor	.12	175	<.001	.97	175	<.001	
Dedication	.16	175	<.001	.96	175	<.001	
Absorption	.09	175	<.001	.98	175	.022	

Annex B. Test of Normality