The Effect of Technology in the Workplace on Perceived Stress, Work-family Conflict and Job Satisfaction

- An experimental study of cross sectional data

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249108 251297

Number of words: 18 626

Number of pages:56

A Dissertation Submitted to

The Norwegian School of Hotel Management

In Partial Fulfillment of the Requirements For the Degree

of International Hospitality Management

University of Stavanger

Spring 2020

FACULTY OF SOCIAL SCIENCES,
NORWEGIAN SCHOOL OF HOTEL MANAGEMENT

MASTER'S THESIS

STUDY PROGRAM:	THESIS IS WRITTEN IN THE FOLLOWING SPECIALIZATION/SUBJECT:
Master's in International Hospitality Management	Technology, workplace, stress, work-family conflict, acceptance, overload, job satisfaction IS THE ASSIGNMENT CONFIDENTIAL? No

TITLE:

The effect of Technology in the Workplace on Perceived Stress, Work-Family Conflict and Job Satisfaction

- An experimental study of cross-sectional data

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Abstract

Technology has become the new way of living, where we can do anything from our phones. The phenomenon of technology has had a great impact on global development, in all aspects. Through the years businesses have, and still do, use an extreme amount of money and resources on new technology features in order to be more efficient. This research aim to look at how technology in the workplace has an impact on the end-user "when the day is over". This can give an indication on how businesses should go around technology to get a better value for their invested capital.

The consequences of technology in the workplace that we address in this research are; work-family conflict, work stress and job satisfaction. We have based the research on the Unified Theory of Technology Acceptance, Technology overload and previous studies looking into the phenomenon of technology in the workplace.

Our main findings suggest that there are several significant relationships between the measures variables in the conceptual framework. But further research should be done to validate these finding extensively. This master thesis can contribute to the understanding of how covid-19 has and will influence technology use in the workplace.

Key words: Technology, workplace, stress, work-family conflict, acceptance, overload

Foreword

This thesis is a result of our two-year Msc. International Hospitality Management program at the University of Stavanger. When we were reflecting on what we wanted to write about, the main factors was that we wanted to write about something that we thought was interesting, relatable, and would gain knowledge we tcould use in our feature jobs. The idea of technology in the workplace came to our minds, as we both have jobs beside the master program, and have experiences how technology has impacted our work situation, specially under the ongoing pandemic.

We would like to thank our supervisor, Torvald Øgaard for his guidance and shared knowledge. We would also give a huge thank you to all the respondents that were willing to participate in the questionnaire. Also we would like to thank friends and family for supporting through this process.

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1.0 Introduction

This chapter is an introduction to the thesis and will present the background for the research field we have chosen. Furthermore the purpose of this research will be explained, presenting our research aim and research questions. We will also give a brief structure of the thesis.

1.1 Background for the chosen topic

Today there are more phones than people in the world (Milenkovic, 2020), and you can basically do *anything* through your phone. We live in an increasingly complex information society where data access is rapidly expanding, and smart technology has contributed to a shift in how we work (Holland & Bardoel, 2016). Statistics have shown that that 95% of the norwegian population have access to a smartphone, whereas 58% use their smartphones to read emails (Statistics Norway, 2019). Technology has changed the way we communicate, the way we work, and the way we behave. Just by looking back a few years we can see drastically changes in how things are done. Technology makes it possible to work any time, anywhere (MacCormick, Dery & Kolb, 2012). In other words we can say that technology has made our everyday life online.

But every uphill has its downhill. This is worth to notice when big companies, such as Volkswagen and Daimler have implemented programs that delete emails sent during off-hours and vacations (Haridy, 2018). This is an indicator that the use of technology has much more impact on the end-user than what one should believe. The and there have been reported several negative outcomes of the rapidly growing technology use, such as technology overload (Karr-Wisniewski & Lu, 2010), technostress (Ioannou & Papazafeiropoulou, 2017) and work-family conflict (Harris, Harris, Carlson, Carlson, 2015). In consideration of the new 24/7 economy, people are constantly connected, and in some way expected to work at any hours, regardless if they have other obligations such as family and friends (Brody, Rubin, 2011).

This thesis is written in the year of 2020, a year that without doubt will leave big imprints in history books for several decades to come. The COVID-19 pandemic The repercussions of the ongoing pandemic will have a profound effect on the data collection of this thesis and therefore we would like to include it as an aspect of the literature. Since the pandemic is still quite “new”, there is very limited literature on the effects it has for the

industry, employees and business environment. We would therefore aim to fill a part of this gap by looking into how covid 19 has influenced technology usage in the workplace in this difficult time.

1.2. Research purpose and questions

Technology can have many positive outcomes, if it is used the right way. We think that it is very interesting to look into how the use of technology influences the end-user. The aim of our research is to detect the impact technology in the workplace has on perceived stress, work-family conflict and job satisfaction. We have conducted three different research questions, whereas the first RQ will be our main question.

RQ (1): Does overload and technology acceptance have an influential relation to the constructs of work family conflict, stress and job satisfaction?
RQ (2): Does perceived work-family conflict and stress influence job satisfaction level?
RQ (3): Does demographic segmentation of the technology end-user play a role in experienced levels of the constructs?
RQ (4): How has the ongoing pandemic COVID-19 influenced technology usage in the workplace?

Furthermore our defined constructs for this thesis is stress, work.family conflict and job satisfaction. We believe, on the basis of the literature, that these constructs will help us gain a greater understanding of how technology in the workplace is perceived. We aim to get a better understanding of these constructs by including variables in two main categories; Overload and acceptance. Where overload includes system feature overload, communication overload and information overload. Acceptance of technology is measured in the variables performance expectancy, effort expectancy, social influence and facilitating conditions.

2.0 Literature review

In this chapter we will present relevant theory related to the overall phenomenon that is being studied. We will start in a broad range with technology, as this is the main field our theis falls under, and then specify it down as we go. Relevant theory and research connected to technology will be presented, before we move into the constructs (overload, stress, WFC and

job satisfaction) we aim to analyse further. Literature on COVID-19 is also included as we believe the current situations impact on business makes it highly relevant.

2.1 Technology

Technology can be defined as knowledge-based aids that replace practical human skills and is made to simplify tasks in our daily lives (Sander, 2019). The development of new technology has made it possible for employees to explore new ways to work when it comes to time, place and space (Holland & Bardoel, 2016). The average Norwegian employee uses 2-5 different digital tools in their workplace (Sintef, 2017b). The first smartphone was introduced in January 2007 under Macworld Conference & Expo by Steve Jobs, at the time the administrative director of Apple. He called it a "*revolutionary device… that changes everything*" (Price & Meisenzahl, 2020), today the iPhone is the first thing we look at in the morning, with over 3 billion users (Milenkovic, 2020). Statistics on smartphone ownership shows that there are now more phones than people in the world. Furthermore statistics show that Americans spent around 5.4 hours daily using their phones, while the most devoted users spent up to 12 hours daily on their smartphones. The average smartphone user checks their phones 58 times a day, with more than half of those occurring within working hours (Milenkovic, 2020). Looking at the big impact technology devices like this have, we are safe to say that technology is a real game changer and has an impact on basically every aspect of our lives. Technology changes work patterns, practices, information flow and the way we communicate with each other, making it a highly interesting topic.

2.2. Information & Communication Technologies (ICT)

In our research we would like to focus on information and communication technology, and how this is used in employers everyday work life. Information technology (IT) enables new ways of connecting people, computers and objects (Montealegre & Cascio, 2017). IT is defined as: *"... the use of any computers, storage, networking and other physical devices, infrastructure and processes to create, process, store, secure and exchange all forms of electronic data"* (Rouse & Bigelow, 2019b). Information technology (IT) has given employees an opportunity to be more free and innovative on the aspects of when we work, where we work and the way we work in a global economy (Holland & Bardoel, 2016).

For our research we would like to include a broader aspect of technology, looking into the part technology has in how we share information and communicate with one another. Over the past three decades there has been an increasing growth in the usage of information and

communication technology, also called ICT (Berisha-Shaqiri, 2014). Information and communication technology (ICT) has not yet an universally accepted definition, but is seen as an extension of the IT term (Rouse, Ferguson & Pratt, 2019a). Compared to IT, ICT includes the integration of communication technology, and will be used throughout this thesis, with the following definition, *"ICT is… all technologies that combined, allow people and organizations to interact in the digital world"* (Rouse, et al., 2019a). Components of ICT are software, cloud computing, internet access, hardware, transactions, data, & communication technology (Rouse, et al., 2019a). The innovations the ICT revolution has brought has not only changed the way we live our lives, but the way people conduct business (Berisha-Shaqiri, 2014). ICT has played a significant role in global development and globalization has had a big impact on the market competitions and have improved the economic scale (Haseeb, Xia, Saud, Ahmad & Khurshid, 2019). Information and communication technologies (ICT) are one of the characteristics of the new economy, and have a vital contribution to the development and performance of the new economy (Ioan & Raluca, 2013)

2.3 Technology in the workplace

"*The twenty-first century has seen significant expansion in the use and availability of technology, which has created a paradigm shift in how we can work*." (Holland & Bardoel, 2016, p. 2579). Technology is continuously expanding and renewing in waves, this also leads to changes, not only in how we can work, but also in the way we work (Holland & Bardoel, 2016). One consequence of the technology emergence is the eliminating need for several types of jobs, resulting in leaving the typical worker worse off than ever before. A study done by Frey and Osborne back in 2017 found that around 47% of all U.S employments are at the risk of being automatized (Frey & Osborne, 2017). This gives us a picture of the power of technology and how it can help businesses to be more efficient, and in several industries, even automatize the human workforce. Still, it's hard to know for sure that this is the reason behind it, there can always be several explanations. In Montealegre & Cascio´s (2017, p. 62) article they state *"The problem for researchers and executives is that it is difficult to separate the effects of technology from other macroeconomic effects"*. In some fields, technology makes it possible for employees to do their work 24/7, or at least parts of it (Hunter & Panagopoulos, 2015). You can always log inn and check the mail, answer some requests and check up on today's status. In fact, *"… most business to business (B2B) sales jobs are impossible to perform without a heavy dependence on sales technology"* (Hunter & Panagopoulos, 2015, p.

162). This is not surprising considering the fact that almost every activity imaginable is switching into mobile to sustain the need of increased information flow, reshaped social conventions and flexible markets (Milenkovic, 2020).

Sintef have conducted several studies on technology emergence at the workplace in relation to stress, productivity and employee's viewpoint of the digitalization (Sintef, 2017a; Sintef, 2016). Their findings from both the pilot project and main project, show that the majority of Norwegian workers have a positive attitude towards digitalization. Variables such as training and participation have shown to strengthen the positive stand. Finally, the greatest influence is found to be employee's representatives' active participation in the introduction processes of new technology (Sintef, 2017a, p. 32).

Holland & Bardoel (2016) examines the smart and dark sides of technology's impact in their paper. Defining the smart sides to be the renewed interest in how work is conceptualized due to the change's technology brings (Holland & Bardoel, 2016). On the other hand technology also opens a door of electronic monitoring and surveillance of both work and employees, inside and outside the office. This can result in significant negative impacts when linked with HR practices designed to develop high commitment and trustworthy relationships, this is referred to as the dark side of technology (Holland & Bardoel, 2016). This dark side of technology calls for several careful considerations, a case on the topic presented in Kidwell & Sprague's (2009) article U.S. courts sided with employers who monitored their employees with the argument that because the monitoring takes place during work hours through organizational assets, the monitoring is acceptable.

"What enables or constraint people in the workplace is the way they use and manage technology, not technology itself" (Montealegre & Cascio, 2017, p. 60). When the technology in the workplace evolves it demands an understanding from the employees/end-user of the technology in relation to the entire work system (Montealegre & Cascio, 2017), this tells us how important it is with the right training and communicate out a clear mission with the evolving changes made.

Norwegian Sintef (2016) conducted a pilot-study on new technology and stress in the workplace on behalf of the National Organization in Norway (LO). Thousand Norwegian employees participated in the study, over half of them said they read work related mail weekly after they stamped out of work (Sintef, 2016, p 16). 71% answered that they work outside paid work, either on computer, on the phone, emails and phone calls (Sintef, 2016, p. 16). This means that only 29% of the respondents leave the job behind when they go home. One explanation to this is technology availability, right in our pocket. Emails are considered a

less intrusive communication media, with a low threshold to use compared to calling someone outside work hours (Sintef, 2016, p. 18). This is supportive to the finding that job stress is likely to increase by mobile technology, because it widens the scope of the job (Romàn, Rodrìguez & Jaramillo, 2018).

2.4. 24/7 Economy

Due to the continuous development in technology it is today possible to work from everywhere at any time. An outcome of the development of technology is the 24/7 economy. Technology is one of the characteristics of the flexible 24/7 economy, which makes it easier for employees to work at all hours, and at all places (Rubin & Brody, 2005; MacCormick, Dery & Kolb, 2012). Earlier a typical workday would consist of a reasonable amount of work that could be accomplished by the end of the day (Brody & Rubin, 2011). This does not mean that they didn't work overtime, but that if they did it was both noticeable and notable and often garnered additional pay (Brody & Rubin, 2011). Increasingly, employees are expected to work anytime, anywhere, no matter other obligations they may have, such as family, friends and other leisure activities (Brody, Rubin, 2011).

Statistics show that 95% of the norwegian population have access to a smartphone, and 58% use their smartphones to read emails (Statistics Norway, 2019). Today it is not abnormal to have email and up to several internal apps connected to your smartphone, where there is continuous communication at all hours of the day. MacCormick et al. (2012, p. 194) gives a good insight of how the 24/7 economy and the use of smartphones can influence everyday life; "*You pick up the BlackBerry, iPhone or similar smartphone and you are mentally transported to work - even if you are physically under the bed playing hide and seek with your children outside of normal working hours*". This gives a good picture of how easy it is to be pulled back to work in a second, even if you left the office several hours ago. It's not hard to understand why the new economy has been named the 24/7 economy, employees are in some way always connected to work and ready to respond even if it is the middle of the night or in the middle of the family vacation.

2.5. High involvement work practices

High involvement work practices (HIWP) consist of four main attributes; power, information, reward and knowledge. Power gives the employee a chance to make decisions by themselves, and/or participate in decision making. It is important that information is shared among the employees so that they know what is happening in the organization. Reward means

that the employees are appreciated for the good work they provide. The last attribute knowledge means that the employees get the necessary training to accomplish their work (Rana, 2014). HIWP benefits both the employees and the organization. Several studies have confirmed that implementing HIWP has positive effects, such as job-satisfaction, commitment, motivation, (Boxall, Hutchison, Wassenaar, 2014; Martin, 2017).

We mentioned that HIWP has a positive correlation with motivation, which is one of the most important drivers for employees' work performance, and are the drivers for the employees to achieve the goals for the organization. Technology that facilitates internal information has a positive effect on the employees motivation (Martin, 2017). Several organizations have also developed training apps and platforms that the employees can use to prepare themself for new tasks and/or enhance their skills (Levi-Bliech, Kurtser, Pliskin & Fink, 2019), this is an additional source to gain involvement by employees.

2.6. Acceptance

One of the major factors a business should consider when implementing and welcoming new technology into their employee's everyday life, is acceptance. Acceptance is defined as *"the action of consenting to receive or undertake something offered"* (Lexico). Therefore, when wanting employees to undertake a new technology change or a new technology software acceptance is crucial. For over two decades user acceptance of technology has been an interesting and important field of study (Chuttur, 2009). Since the implementation of technology in the workplace started in the 1960´s and continued to bloom through the 70´s and 80´s (Heckman), theories about technology acceptance in the workplace started to rise in the literature.

2.6.1. Technology Acceptance Model (TAM)

The only way technology features can improve organizational performance is if they are being used. Employee acceptance is about the willingness to use work related technology (Jacobs, Hettinger, Huang, Jeffries, Lesch, Simmons, Verma & Willetts, 2019). The technology acceptance model (TAM) was first introduced in the late eighties (Davis, 1986), when emails and work processing systems had just been integrated in the workplace. The model doesn´t say anything about the technology, but how the user perceives the technology and is an explanation of user acceptance of information systems (Davis, 1986). The Technology Acceptance Model is the most cited and used model in studies when it comes to technology acceptance, it is used to explain and predict system use (Chuttur, 2009). *"TAM is considered*

the most influential and commonly employed theory for describing an individual's acceptance of information systems" (Lee, Kozar & Larsen, 2003, p. 752). This model helps us understand why technology is adopted, and therefore contains relevant knowledge for businesses implementing technology changes, andr in general for any business that uses ICT systems.

TAM shows how external variables lead to the users perceived usefulness (U) and ease of use (E) of an information system. The actual system use is determined by the behavioral intention (BI). Furthermore the BI to use the system is jointly determined by a person's attitude toward using (A) and the perceived usefulness (U), this equals: BI = A+U (Davis, 1986). This relationship shows where the focus during an implementation phase of new technology should be.

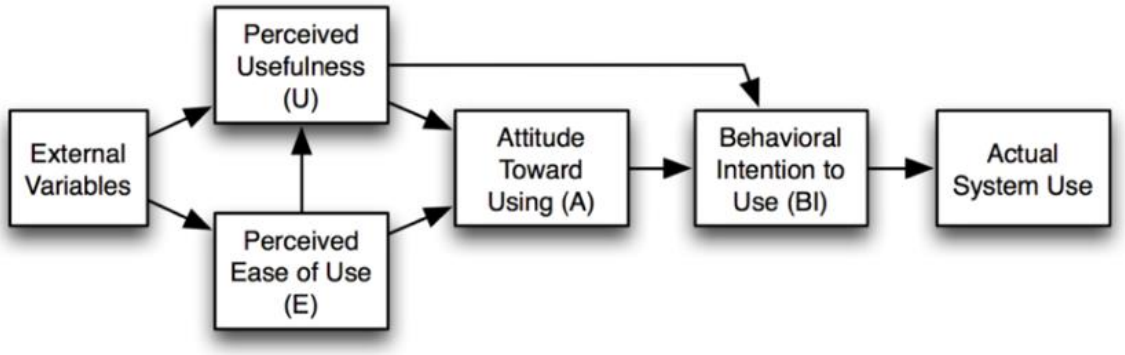

Figure 1: Technology Acceptance Model (Davis, Bagozzi & Warshaw, 1989)

The purpose of TAM "*...is to provide a basis for tracing the impact of external factors on internal beliefs, attitudes and intentions*" (Davis, Bagozzi & Warshaw, 1989, p. 985). In the study of Jacobs et al. (2019) on wearable technology in the workplace, they confirmed that user behavior is strongly dependent on employee acceptance. They also added to the literature in their findings by identifying several factors that would help in the implementation phase of the technology: "*... the employees should be involved in the process of selecting the device, and the program should engender trust by clarify informing employees about why, how and by whom the data will be used and protected*" (Jacobs et. al., 2019, p. 155).

In Chuttur`s (2009, p. 17) paper he discussed some of the skepticism around TAM and the accuracy of the model, while concluding that research on TAM in the future should : "*... focus in developing new models that would exploit the strengths of the TAM model while discarding its weakness*". This brings us over to the two revisions that have been made of this model, TAM 2 and UTAUT.

2.6.2. TAM 2 revision

The TAM 2 (appendix 1) revision is an extension of the TAM model that goes more deep into the external variables that influence how the end-users perceive the technology (Venkatesh & Davis, 2000). The elaboration of TAM had two main goals, to resolve the limitations of the model that previous studies had raised awareness to, and to develop the next generation TAM that would build upon the previous effects (Lee et al., 2003). This new millennium version of the original TAM taps more into a person's previous experience with external variables and how this leads to perceived use. It focuses more on an individual's thought process of the new technology, adding the variables; subjective norm, image, job relevance, output quality, result demonstrability, experience and voluntariness (force on them vs. own intention of use) (Venkatesh & Davis, 2000).

As mentioned, TAM is the most widely used model for understanding the process of a user, but there have also surfaced some revisions after this model came out, the last one we would like to bring up is the unified theory of acceptance & use of technology.

2.6.3. The Unified Theory of Acceptance & Use of Technology (UTAUT)

The Unified Theory of Acceptance and use of Technology (UAUT) model is the most developed model for testing the acceptance of workplace technology (Jacobs et al., 2019). According to the UTAUT the behavioral intention (BI) to accept and use a technology is dependent on four core determinants; performance expectancy (PE), effort expectancy (EE), social influence (SI) and facilitating conditions (FC) (Venkatesh, Morris, Davis & Davis, 2003). The model is shown in figure 2. In addition to introducing these four core determinants, Venkatesh et al. (2003), added the factors gender & age as individual influencing factors to BI, similar to TAM 2 experience & voluntariness of use is included in this final revision . These revision aspects make UTAUT the most complex and explained model of user intention of technology, with the insight on factors that lie behind BI it results in a more comprehensive view of the picture. The most important issue when it comes to using the UTAUT is abeling managers to make informed decisions about technology interventions, so the result can lead to greater acceptance and effective utilization of ICT (Venkatesh & Bala, 2008).

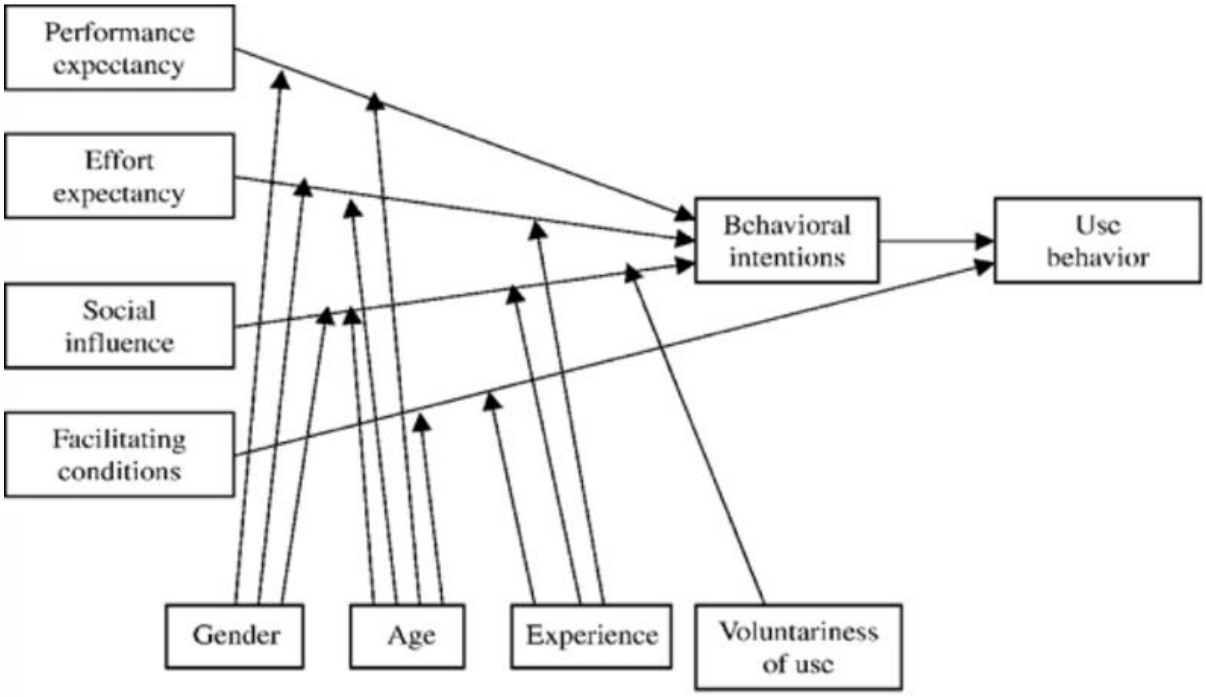

Figure 2: The unified theory of acceptance & use of technology (Venkatesh et al., 2003)

2.6.3.1 Performance expectancy (PE)

Performance expectancy (PE) is defined as *"the degree to which the user expects that using the system will help him or her to attain gains in job performance"* (Venkatesh et al. 2003, p 447). The performance expectancy is considered the strongest intention predictor and shows significant points measured towards both mandatory and voluntary settings (Venkatesh et al. 2003).

2.6.3.2. Effort expectancy (EE)

Effort expectancy (EE) is defined as *"the degree of ease associated with the use of the system"* (Venkatesh et al. 2003, p 450). Previous studies have found a negative relationship between perception of complexity of the use and utilization of PC's (Thompson, Higgins & Howell. 1991), this means that if the user perceives a ICT to be difficult to use, there is a negative influence on BI. The ease of use and usefulness are found to be the primary drivers of users intention to adopt and actually use new technology (Brown, Massey, Montoya-Weiss & Burkman, 2002)

2.6.3.3.Social influence (SI)

Social Influence (SI) is defined as *"the degree to which an individual perceives that important others believe he or she should use the new system"* (Venkatesh et al. 2003, p. 451). Thompson et al., (1991) found a significant relationship between social factors and the utilization of computers. Social influence goes to the extent to which the end-user perceives that their important others believe they should use the technology system, for example; friends, family and respected colleagues (Venkatesh et al., 2003).

2.6.3.4. Facilitating conditions (FC)

Facilitating conditions (FC) is defined as *"The degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system"* (Venkatesh et al. 2003, p. 453). The facilitating conditions refers to a consumers perception of resources and support available to them, to perform usage of technology. This can be supported from colleagues, enough knowledge and guidance in use of the technology system or available assistance in case of experienced difficulties with the system (Thompson et al. 1991; Taylor & Todd, 1995).

2.7 Review of constructs

2.7.1. Technology Overload.

Earlier we talked about the 24/7 economy where people are constantly connected to work through technology. The constant connection can lead to technology overload, and there are three main factors; information, communication and system overload (Karr-Wisniewski & Lu, 2010). Technology overload occurs when usage of multiple technology devices in everyday activities leads to a cognitive and physical burden on human beings (Grandhi, Jones & Hiltz, 2005). To utilize the positive benefits of technology it is important to find a balance in how it is being used (MacCormick et al., 2012). MacCormick et al. (2012) developed three categories of smartphone users; dynamic connectors, hyper-connectors and hypo-connectors. Dynamic connectors are able to move between extremes of low and high connectivity as the situation and personal needs changes. The hyper connectors are constantly connected and this can affect both the quality and the quantity of the communication. The hypo-connectors don't want to be connected at all time, and prefer to finish work when they are in the office. The most beneficial way to use technology is to use it as the dynamic connectors (MacCormick et

al., 2012), as they are more balanced and communication is characterized by higher quality instead of quantity. High levels of technology overload have been linked to job strain (Harris, Lambert & Harris, 2013), and increased work family conflict (Harris, Harris, Carlson & Carlson, 2015). Therefore, it would not be beneficial for employees' mental health and stress levels to have several colleagues characterized as hyper-connectors.

2.7.1.1. Information Overload

Technology gives the employer the possibility to share information with the employees at all times, such as organizational changes, update on results, new policies etc. Information overload is when employees experience excessive information (Harris et al., 2015) in a degree that it is more than they can cognitively process (Farhoomand & Drury, 2002). Information overload is a phenomenon that causes problems at the personal, social and organizational level (Benselin & Ragsdell, 2015). Studies have confirmed that information overload can lead to productivity losses, stress and negative emotions at work (Karr-Wisniewski & Lu, 2010; MacCormick et al., 2012; Lee, Son & Kim, 2015; Lee, 2016; Benselin & Ragsdell, 2015). O`Riley (1980) found that decision makers tend to seek excessive information, even though this decreases the decision making process. The paradox in this case was that even though the information overload had a negative effect on the decision making process, it increased the decision-makers confidence and satisfaction in their decisions (O`Riley, 1980). By providing the employees with only relevant information it will improve the performance of their problem-solving/alarm handling (Dadashi, Golightly & Sharples, 2017).

2.7.1.2 Communication Overload

Communication overload occurs when a third party communicates through email, instant messages, mobile devices etc., to a point that it causes excessive interruptions, resulting in the worker to become less productive (Karr-Wisniewski & Lu, 2010; Harris et al., 2015). Studies have shown that excessive interruptions affect human behavior by negatively impacting recall, accuracy, efficiency, stress level and ultimate performance (McFarlane & Latorella, 2002; Stich, Tarafdar, Stacey & Cooper, 2019a; Stich, Tarafdar, Stacey & Cooper, 2019b). Estévez-Mujica & Quitane (2018) found in their study that the volume of e-mail communication does not have a correlation with increased risk of burnout and/or levels of

exhaustion or disengagement.

2.7.1.3 System Feature Overload

System feature overload occurs when the given technology is too complex for a given task (Karr-Wisniewski & Lu, 2010). When experiencing system feature overload the productivity may be impeded (Karr-Wisnewski & Lu, 2010). Too many features can make a product overwhelming and difficult to use. Ayyagari, Grover & Purvis (2011) states that the more complex a system is, the more frustrated the consumer will be due to the high amount of features and learning how to use them. Thompson, Hamilton & Rust (2005) found in their study that consumers tend to choose too complex systems that do not maximize their satisfaction, which leads them to "feature fatigue". Based on this, Thompson et al. (2005) suggest systems that are more specialized and have less features, instead of implementing all possible features in one system. Studies have shown that if individuals find information and communication technology useful and reliable, it will cause lower levels of work overload (Ayyagari et al., 2011).

2.7.2. Technostress

Stress is a human reaction that occurs when an individual feels that they can't cope with the demanded environmental expectations (Lee et al., 2015). Bansal (2018, p. 29) defines stress as "*... a state of mind that reflect certain biochemical reactions in the human body and is projected by a sense of anxiety, tension and depression*". The World Health Organization says that work-related stress can be caused by poor work organization, poor work design, poor management, unsatisfactory working conditions, and lack of support from colleagues and supervisors (World Health Organization, b). For example, in the workplace, stress can occur if the employee is given a certain task, but doesn't have the required skills, time or resources. Thus, the employee will feel a gap between the environmental expectations and personal abilities. Stress can be seen as the human body's alarm system, and will be activated when an individual feels threatened or overstrained (Arbeidstilsynet). What causes stress is very individual, and some people tend to stress more than other people. Stress is an important human factor that affects management, performance, focused attention, productivity, decision making and well-being in the workplace (Jeanguenat & Dror, 2017).

Coping efforts are tools that can be used to handle stress, and can exclude the stress for good or minimize it if it is used successfully. In other words, learning how to cope with stress and certain stressors will give a huge advantage the next time a similar situation will occur

(Harris, Daniels & Briner, 2004). Therefore, it is extremely important to learn how to cope with stress, or avoid stress to enhance the quality of the service (Jeanguenat & Dror, 2017). Stress does not only affect the individuals personal health, but also the organization's bottom line, and therefore it is extremely important for organizations to include stress management in their business strategy.

The growth of Information Communication Technologies (ICT) in organizations has led to tremendous positive outcomes for organizations, in both performance and efficiency. But everything comes with a cost, and one of the negative aspects of the explosion in ICT usage is stress related, also referred to as "technostress" (Ioannou & Papazafeiropoulou, 2017). Technostress is perceived individually, where personal skills are critical (Shu, Tu & Wang, 2011). Older people will more likely experience technostress related to work, versus younger people (Brody & Rubin, 2011). Result from studies have confirmed that technostress and productivity are related, where a lower state of technostress increases the productivity (Tarafdar, Tu, Ragu-Nathan & Ragu-Nathan, 2007). ICT is constantly developing, and it can be hard for individuals to adapt the new features. Sintef's (2016) study on technostress in the workplace showed that 68% of the respondents experience stress "sometimes/often/always" due to the use of information and communication technology systems. This shows how important stress as a human factor is, as poor use and training of ICT can become a work environment problem. Going further in this thesis we will refer to technostress as work stress.

2.7.3. Work - Family- Conflict (WFC)

Today's employees are able to access and to be reached in increasingly various ways compared to the workforce of previous decades (Harris et al., 2015). With the increased access and reachability this has enabled employees to work more out of office, when on vacation and on the run. Studies have shown that this accessibility can bring work stressors back home to the family life (Harris et al., 2015). One of the consequences by having work only a click away on our phones, computers and tablets, is the time it takes away from our presence back home. The time it takes to just answer a work call, just check the email or to easily have the access to do some more work after you get home has caused the emergence of a phenomenon called "Work-family-conflict" to be more relevant and vital than never before.

Work-family-conflict (WFC) is defined as: *"A form of inter-role conflict in which the role pressures from the work and family domain are mutually incompatible in some respect. that is, participation in the work (family) role is made more difficult by virtue of participation*

in the family(work) role" (Greenhaus & Beutell, 1985, p.77). There are three different major forms of work-family conflict; time-based conflict, strain-based conflict and behaviour based conflict (Greenhaus & Beutell, 1985). The conflict occurs when a person experiences a clash between two different roles and obligations, defined as: *"... any role characteristic that affects a person's time involvement, stain or behavior within a role can produce conflict between that role and another role"* (Greenhaus & Beutell, 1985, p. 77).

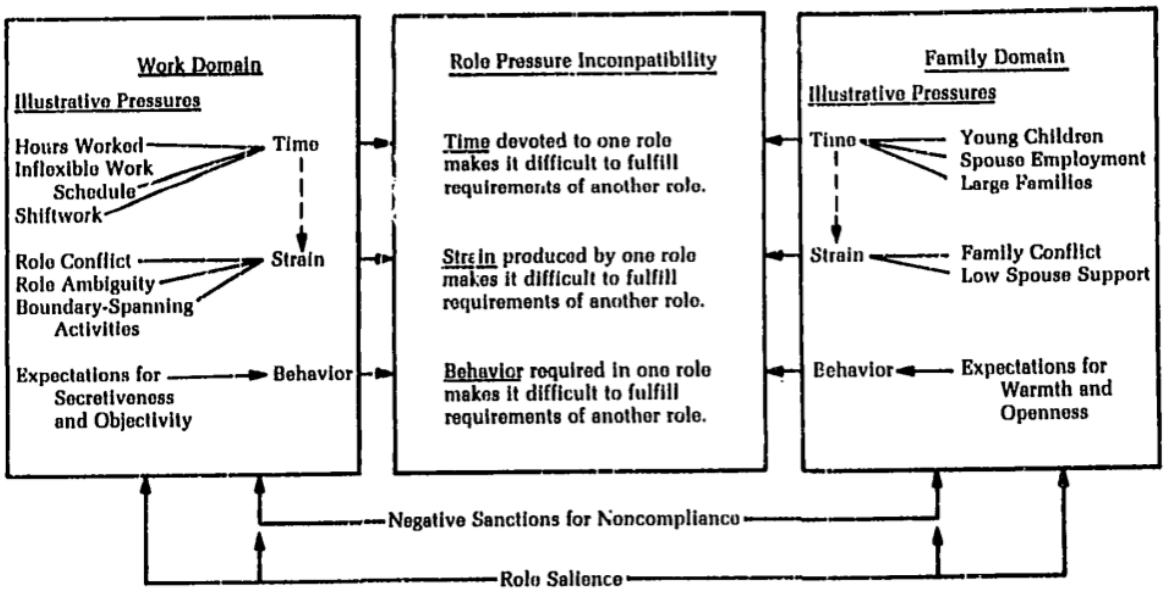

Figure 3: Work - Family Role pressure incompatibility. (Greenhaus & Beutell, 1985, p. 78)

To what degree an employee experience WFC varies according to life situations. For some this might not even be a problem, for a single, childless, and young worker this is a non topic. But for others; settled down employees with a large family, married, children and obligations that come with it back home; studies have shown that they feel a conflict between the two; work and family (Turel, Sereko & Bontis, 2011). Previous studies have shown that married persons experienced significantly more work family conflict than unmarried persons (Herman & Gyllstromm, 1977). Although this source is several decades ago, we find it relevant and interesting to compare to today's society. Today time is considered the most important and valuable asset we have (Kruse, 2016), hence the struggle of not having enough time to fill the various roles and follow through on our obligations, is a hot current topic.

Furthermore WFC is a relevant construct to look into as an outcome of technology overload (Harris et al., 2015). Studies have stated that there is a significant relationship between pressure from technology and work-family conflict (Harris, Marett & Harris, 2011). Previous studies have shown a relationship between WFC and several negative outcomes, such as; decreased job satisfaction and performance (Carlson, Grzywacz, Ferguson, Hunter, Clinch & Acury, 2011), higher levels of stain and absenteeism, adverse health and impact on turnover (Amstad, Meier, Fasel, Elfering & Semmer, 2011).

The link between technology and WFC have been looked into in several studies (e.g. Harris et al., 2015), where it was found a significant strong effect between system feature overload and WFC. This finding is interesting to examine further as it hints to not technology in itself being the cause of WFC but the understanding of the system, or more precisely lack of understanding by technology end-users.

Turel et al., (2011) conducted an empirical study of 241 organizational mobile email users. Their findings showed that *"... their levels of addiction to mobile email increased their perceived work overload and technology-family conflict"* (Turel et al., 2011, p. 88). Another interesting outcome of their study showed that perceived work overload reduced the users organizational commitment. Furthermore the combination of perceived work overload and extended technology family conflict fostered work-family conflict for the users.

The majority of studies on work-family-conflict look into families that are well "settled down", the dilemma of employees who have to work long hours and miss their kids football practises and other events. But another interesting aspect that can broaden this theory is to use the WFC model on employees' life that does not necessarily contain kids, but still have the issue of balancing a demanding job and a full life outside of work. There are several aspects of the nonwork life that hold different roles for us to fill. In addition to being an employee you are a friend, a daughter, an aunt, a film enthusiast, health concerned and so on. All these roles, hobbies and interests demand a certain amount of time and obligations, where work has the possibility to interfere with these areas of nonwork life. Looking more into employees pursuits outside of work and linking it to WFC could bring benefits and diversity to the literature. Keeney, Boyd, Sinha, Westring & Ryan (2013) looked into this connection in their study of university alumnus from several organizations and diverse occupations. The study measured work-interference on life across eight different non-work domains, with the focus on strain and time-based interference.

2.7.4. Job satisfaction

"*Job satisfaction is an overall state that is derived from experiencing a work situation*" (Christen, Iyer & Soberman, 2006). A salesperson's job satisfaction is defined as "*all characteristics of the job itself and the work environment which salesmen find rewarding, fulfilling and satisfying, or frustrating and unsatisfying*" (Churchill, Ford & Walker, 1974, p. 225) . High level of job satisfaction can positively influence the workers productivity and the overall life well-being of individuals (Gambacorta & Iannario, 2013). Previous studies about job satisfaction and technology have found a positive relationship between ease of use and training opportunities (Mariani, Curcuruto & Gaetani, 2013).

In 2018 a study was done focusing on the role stress and job satisfaction had in comparison to employees burnout and turnover intention on 265 sales employees from a range of industries in Spain (Romàn et al., 2018). The findings showed that "... *mobile technology use during working hours has a positive effect on job satisfaction through a mediating process that involves role stress*" (Romàn et al., 2018 p. 651). Furthermore the findings implied that the effect of using mobile technology on role stress is strengthened by technological compatibility.

2.8. COVID-19

"Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus "(World Health Organization, a)**.** The whole world has been affected by the ongoing pandemic COVID-19, and Nielsen Global Media (2020) predicted in Mars that the pandemic would shape business and consumer behavior for months. The prediction was right, and there has been an increased use of technology during the pandemic (Nielsen Global Media, 2020). The pandemic has forced employees to work from home, due to the initiative of social distancing, which can make it hard to distinguish between work and home (Garfin, 2020). Garfin (2020) states that people who are working from home have an increased engagement in the usage of technology. Chick, Clifton, Peace, Propper, Hale, Alseidi & Vreeland (2020) have conducted a study on the use of technology to maintain education of residents during the COVID-19 pandemic. Their findings showed that using innovative solutions by utilizing technology helped the surgical residents to bridge the educational gap in this unpredicted time (Chick et al., 2020).

A study of governance, technology and citizen behavior under the pandemic, done in East Asia, found extensive use of emerging technologies linked to medical technologies

(Shaw, Kim & Hua, 2020). The article states: " *In the advanced stage of technological intervention, a pandemic response is not just a medical response anymore. It needs to link different types of technologies in an appropriate way*" (Shaw et al., 2020, p. 10).

2.9. Demographic Segmentation

The word "demographics" is original from Greek, and means "population description". Demographic segmentation gives us measurable sizes of a population, and are often used because it is an easy and cost-efficient way to collect, process and understand the information from a selection. It is important to emphasize that demographics alone cant explaine an outcome, but can influence the end-result. E.g. age has a crucial influence on interests and lifestyle, which again will influence preferences, values and experiences (Sander, 2018).

We will use demographic analysis in this paper to segment our respondents and further describe their characteristics linked to demographic elements. We have chosen to include demographic segmentation based on gender, age, education and family-status.

Previous studies found that men and women have different needs, interests, values and behavior, thus, segmentation on gender is often used (Sander, 2018). We think it would be interesting to see if there are any differences between men and women regarding the use of technology systems and how this affects them in their work- and everyday life.

Working women invest more time in family care and household than men (Stier & Lewin-Epstein, 2007). Notten, Grunow & Verbakel (2016) found in their study that women and the higher educated report most work-family-conflict. A study conducted in Sweden found that men and womans self-rated health was negatively affected by WFC, but women were more influenced than men (Leineweber, Baltzer, Hanson & Westerlund, 2012). O'Laughlin & Bichoff (2005) found that women experience a higher level of academic and family stress, additionally perception of lower institutional support in addition to WFC.

A Swedish study based on white-collar employees done by Krantz & Lundberg (2006) found that women had a higher workload than men and reported higher levels of work stress.

It has been found that all ages suffer from information overload, where the younger people primarily are affected by information literacy, and older people are affected by technology (Benselin & Ragsdell, 2015).

Previous studies have shown that the dimensions of technology overload is perceived individually, therefore workers exposed to the same work environment may vary as to their

perceived levels of information, communication and system feature overload (Karr-Wisniewski & Lu, 2010).

It's found that individuals in higher-status occupations have a higher level of perceived work-to-home conflict (Schieman, Whitestone & Gundy, 2006).

2.10 Proposed research model

The literature has led us to develop a research model that we would like to test out in this research. Figure 4 is our conceptual framework to present the phenomenon of the study. Our aim is to find validity for this research model.

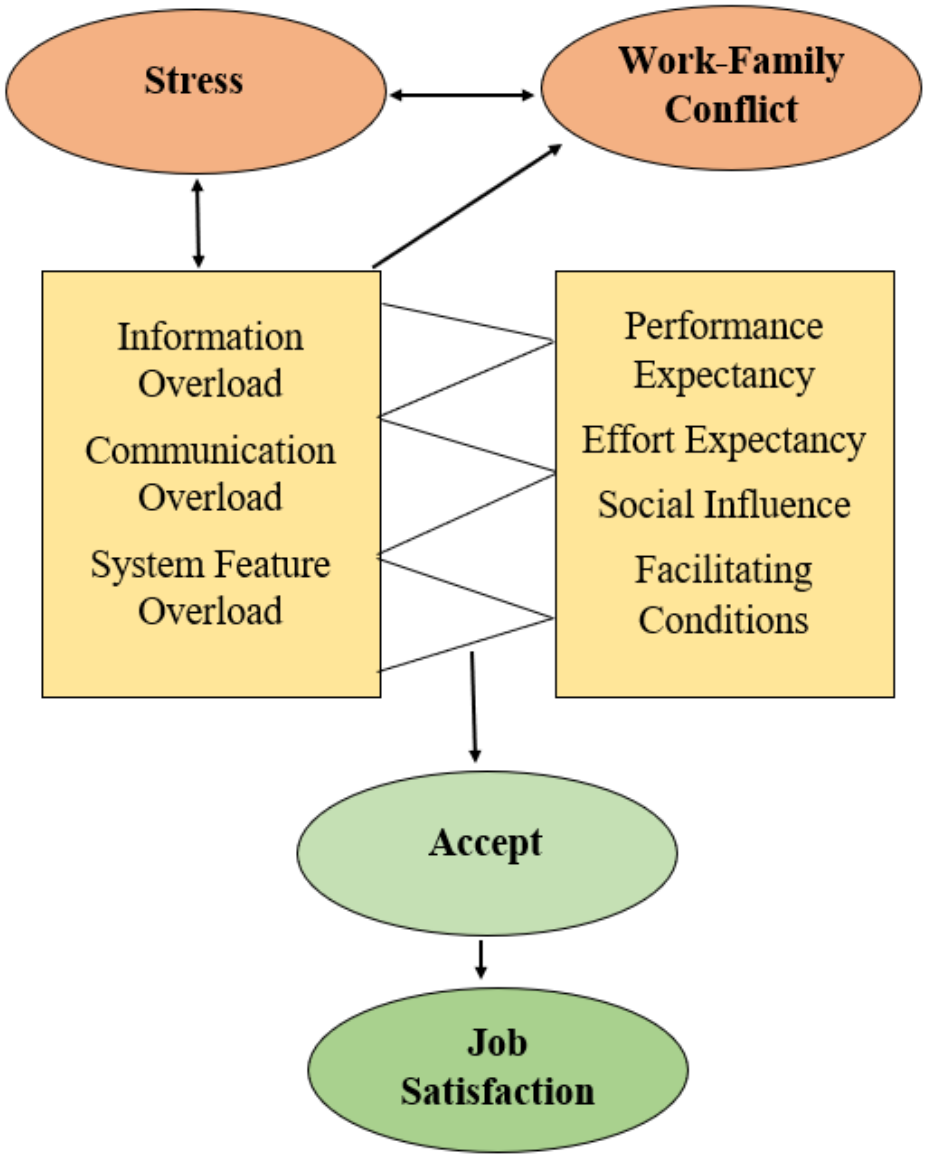

Figure 4: Conceptual framework - A unified model of Stress, Work Family Conflict, Overload and Acceptance in relation to job satisfaction regarding technology at the workplace.

The model is inspired from Venkatesh et al (2003)'s model of the unified theory of acceptance of technology (UTAUT), connected to the theory of overload (Karr-Wisniewski & Lu, 2010), Work-family conflict (Greenhaus & Beutell, 1985) and stress (Lee et al., 2015). As mentioned in the literature of acceptance, there is conducted so much research and revisions of the TAM model, leading to the UTAUT, that there is considered to be no need for extensive research on this subject. We therefore aim to contribute an extended version of the technology acceptance point of view, by merging technology acceptance with overload, stress, WFC and job satisfaction. This can lead to a broader understanding on the impact technology in the workplace has on employees. A complex view of their perceived stress, WFC, overload and acceptance, linked to job satisfaction. We aim to find influential data in our research that can contribute valuable information to not only the hospitality industry, but for industries in general to adapt.

3.0 Summary literature review/ Context of the study

In this chapter we will present a clarification of concepts in the thesis. This is with the intention that it will be easier to relate to the various concepts that will be used further in the thesis, analysis and discussion. Our framework for the questionnaire is presented in table 2 that shows the questions that have been asked and the sources they are obtained from. Additionally the research aims, questions and hypotheses will be presented.

3.1 Research Aim

A review of the literature has lead us to the following research aim:

"To detect the effect technology overload and acceptance in the workplace have on perceived stress, work-family conflict and job satisfaction"

3.2 Research Questions & hypothesis

Based on the literature review in the previous section and our research aim, these research question (RQ) and hypothesis (H) were developed:

RQ (1): Does overload and technology acceptance have an influential relation to the constructs of work family conflict, stress and job satisfaction?
RQ (2): Does perceived work-family conflict and stress influence job satisfaction level?
RQ (3): Does demographic segmentation of the technology end-user play a role in experienced levels of the constructs?
RQ (4): How has the ongoing pandemic COVID-19 influenced technology usage in the workplace?

Hypothesis demografi:

Gender:

H1 0: There is no difference in experienced WFC and gender
H1a: There is a difference in experienced WFC and gender

H20: There is no difference in experienced stress and gender
H2a: There is a difference in experienced stress and gender

Age:

H3 0: There is no difference in experienced system overload and age
H3 a: There is a difference in experiences system overload and age

H4 0: There is no difference in experienced effort expectancy and age
H4 a: There is a difference in experienced effort expectancy and age

H5 0: There is no difference in experienced facilitating conditions and age
H5 a: There is a difference in experienced facilitating conditions and age

Children:

H6 0: There is no difference in experienced WFC and family-status
H6 a: there is a difference in experienced WFC and family-status

H7 0: There is no difference in experienced communication overload and family-status
H7 a: There is a difference in experienced communication overload and family-status

H8 0: There is no difference in experienced stress and family-status

H8 a: There is a difference in experienced stress and family-status

Education:

H9 0: There is no difference in experienced work-family conflict and level of education

H9 a: There is a difference in experienced work-family conflict and level of education

Hypothesis subjects

Work-family conflict

H10 0: There is no relationship between stress and work-family conflict

H10 a: There is a relationship between stress and work-family conflict

H11 0: There is no relationship between technology overload and work-family conflict

H11 a: There is a relationship between technology overload and work-family conflict

H12 0: There is no relationship acceptance and work-family conflict

H12 a: There is a relationship between acceptance and work-family conflict

H13 0: There is no relationship between job satisfaction and work-family conflict

H13 a: There is a relationship between job satisfaction and work-family conflict

Work Stress (technostress)

H14 0: There is no relationship between technology acceptance and work stress

H14 a: There is a relationship between technology acceptance and work stress

H15 0: There is no relationship between technology overload and stress

H15 a: There is a relationship between technology overload and stress

H16 0: There is no relationship between work-family conflict and work stress

H16 a: There is a relationship between work-family conflict and work stress

H17 0: There is no relationship between job satisfaction and work stress

H17 a: There is a relationship between job satisfaction and work stress

Job Satisfaction

H18 0: There is no relationship between technology acceptance and job satisfaction

H18 a: There is a relationship between technology acceptance and job satisfaction

H19 0: There is no relationship between work stress and job satisfaction

H19 a: There is a relationship between work stress and job satisfaction

H20 0: There is no relationship between work-family conflict and job satisfaction

H20 a: There is a relationship between work-family conflict and job satisfaction

H21 0: There is no relationship between technology overload and job satisfaction

H21 a: There is a relationship between technology overload and job satisfaction

COVID-19

H22 0: There is no relationship between COVID-19 and technology overload

H22 a: There is a relationship between COVID-19 and technology overload

H23 0: There is no relationship between COVID-19 and work stress

H23 a: There is a relationship between COVID-19 and work stress

3.3. Research Questions & Hypothesis overlook:

Table 1:
RQ and H connection

Subject	Number	Research Question	Hypothesis
Construct relation	RQ1:	Does technology -overload and -acceptance have an influential relation to the constructs of work family conflict, stress and job satisfaction?	H11, H12, H14, H15, H18,
Work-Family Conflict, stress & Job Satisfaction connection	RQ2:	Does perceived work-family conflict, stress and job satisfaction level influence each other?	H10, H13, H16, H17, H19, H20,
Demographic variance	RQ3:	Does demographic segmentation of the technology end-user play a role in experienced levels of the constructs?	H1, H2, H3, H4, H5, H6, H7, H8, H9

COVID-19	RQ4:	How has the ongoing pandemic COVID-19 influenced technology usage in the workplace?	H21, H22

Note. Overview connection between RQ and H.

3.4. Questionnaire framework

In Table 2 we have presented our questionnaire in categories witch the source it is retrieved from, along with a definition on the subjects.

Table 2
Questionnaire Framework

	Definition	**Question**	**Source**
Technology	Technology can be defined as knowledge-based aids that replace practical human skills and is made to simplify tasks in our daily lives (Sander, 2019).	Technology makes me work more efficient	Tarafdar et al. (2007)
		I find it hard to keep up with all the new technological features	Tarafdar et al. (2007)
Technology Acceptance	Acceptance is defined as *"the action of consenting to receive or undertake something offered"* (Lexico)	I am willing to use work related technology	Jacobs et al. (2019)
Performance expectancy (PE)	Performance expectancy (PE) is defined as *"the degree to which the user expects that using the system will help him or her to attain gains in job performance"* (Venkatesh et al. 2003, p 447)	I'm more likely to use a technology system if I think it will be easy to use	Savis, Bagozzi, Warshaw (1989)
		Using the technology system makes it easier to do my job	Davis (1989); Davis et al. (1989)
		Using the technology system improve my job performance	Davis (1989); Davis et al. (1989)
		Use of the system increases the effectiveness of performing job tasks	Thompson et al. (1991)
		Use increases the quantity of output for the same amount of effort	Thompson et al. (1991)
Effort expectancy (EE)	Effort expectancy (EE) is defined as *"the degree of ease associated with the use of the system"* (Venkatesh et al. 2003, p 450).	I´m more likely to use a technology system if it is very useful, even though it takes some time to learn it	Savis, Bagozzi, Warshaw (1989)
		Learning to operate the technology system is easy for me	Davis (1989); Davis et al. (1989); Moore & Benbasat (1991)
		I believe that it is easy to get the technology system to do what I want it to do	Moore & Benbasat (1991)
		Using the technology system enables me to accomplish tasks more quickly	Moore & Benbasat (1991)
		Using the technology system takes too much time from my normal duties	Thompson et al. (1991)

Social Influence (SI)	Social influence (SI) is defined as *"the degree to which an individual perceives that important others believe he or she should use the new system"* (Venkatesh et al. 2003, p. 451).	People who are important to me think that I should use the technology system	Davis et al. (1989)
		People who influence my behavior think that I should use the technology system	Venkatesh et al. (2003)
		I use the technology system because of the proportion of coworkers who use the system	Thompson et al. (1991)
		Using the technology system my coworkers will perceive me as competent	Compeau and Higgins (1995b); Compeau & Higgins. (1999a)
		My supervisor is very supportive of the use of the technology system for my job	Thompson et al. (1991)
		In general, the organization has supported the use of the technology system	Venkatesh et al, (2003)
		My supervisor has been helpful in the use of the technology system	Thompson et al. (1991)
Facilitating Conditions (FC)	Facilitating conditions (FC) is defined as *"The degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system"* (Venkatesh et al. 2003, p. 453).	I have the resources necessary to use the technology system	Taylor & Todd (1995)
		I have the knowledge necessary to use the technology system	Taylor & Todd (1995)
		Given the resources, opportunities and knowledge it takes to use the technology system, it would be easy for me to use it	Taylor & Todd (1995)
		Specialized instruction concerning the technology system was available to me	Thompson et al. (1991)
		Guidance was available to me in the selection of the technology system	Thompson et al. (1991)
		A specific person (or group) is available for assistance with the technology system difficulties	Thompson et al. (1991)
		Using the system is frustrating for me	Compeau & Higgins (1995b); Compeau & Higgins (1999a)
Overload	Technology overload is defined as: *"the cognitive and physical burden placed on human beings due to usage of multiple devices for everyday activities" (*Grandhi et al., 2005)		
Information Overload	Information overload is when employees experience excessive information (Harris et al., 2015) in a degree that it is more than they can cognitively process (Farhoomand & Drury, 2002)	I often receive more information than I can efficiently use	O`Riley (1980)
		In general, the information I receive is relevant to me	O`Riley (1980)
		I am often distracted by the excessive amount of information I receive	Karr-Wisniewski & Lu (2010)
		I feel some problems with too much information, instead of not having enough information	Karr-Wisniewski & Lu (2010)
		The total amount of information I receive in a typical work week is enough to meet the information requirements of my job	O`Riley (1980)

Communication Overload	Communication overload occurs when a third party communicates through email, instant messages, mobile devices etc., to a point that it causes excessive interruptions (Karr-Wisniewski & Lu, 2010; Harris et al., 2015)	I often feel overloaded with communication from technology devices	Karr-Wisniewski & Lu (2010)
		I receive more communication messages and news than I can handle	Karr-Wisniewski & Lu (2010)
		I feel I have to send more messages to colleagues than I want to send	Karr-Wisniewski & Lu (2010)
System Overload	System feature overload occurs when the given technology is too complex for a given task (Karr-Wisniewski & Lu, 2010)	The technology system makes me able to do my job	Ayyagari et al. (2011)
		I am often distracted by technology system features that are not necessary	Thompson et al. (2005)
		The functions of the technology system are easy to use	Ayyagari et al. (2011)
		I am often less productive in my workday because the technology system is difficult to use	Thompson et al. (2005)
		I find that most of the system features handle too many tasks poorly, instead of few tasks very well	Thompson et al. (2005)
Work Stress	Bansal (2018, p. 29) defines stress as "*... a state of mind that reflect certain biochemical reactions in the human body and is projected by a sense of anxiety, tension and depression*".	Technology force me to work much faster	Tarafdar et al. (2007)
		Technology force me to work with very tight time schedule	Tarafdar et al. (2007)
		Technology force me to do more work than I can handle	Tarafdar et al. (2007)
		I have a higher workload because of increased technology complexity	Tarafdar et al. (2007)
		I am forced to change my work habits to adapt to new technologies	Tarafdar et al. (2007)
		My personal technological skills have an impact on my stress level at work	Shu et al. (2011)
Work Family Conflict (WFC)	Work-family-conflict (WFC) is defined as: *"A form of inter-role conflict in which the role pressures from the work and family domain are mutually incompatible in some respect. that is, participation in the work (family) role is made more difficult by virtue of participation in the family(work) role"* (Greenhaus & Beutell, 1985, p.77)	The time I must devote to my job keeps me from participating equally in household responsibilities and activities	Harris, Marett & Harris (2011)
		My work keeps me from my family activities more than I would like	Harris et al. (2011)
		When I get home from work, I am often to exhausted to participate in family activities/responsibilities	Harris et al. (2011)
		I am often emotionally drained when I get home from work that it prevents me from contributing to my family	Harris et al. (2011)
		Due to all the pressure at work, sometimes when I get home, I am too stressed to do the things I enjoy	Harris et al. (2011)

		I often think about work when I am home, as a result of technology increase	Harris et al. (2011)
Job Satisfaction	"*Job satisfaction is an overall state that is derived from experiencing a work situation*" (Christen, Iyer & Soberman, 2006)	My work gives me a sense of accomplishment	Romàn et al. (2018)
		My work is satisfying	Romàn et al. (2018); Christen, Iyer & Soberman (2006)
		My job is exciting	Romàn et al. (2018)
		I would advice a friend looking for a new job to take one similar to mine	Christen, Iyer & Soberman (2006)
		I just hate to get up in the morning to go to work	Christen, Iyer & Soberman (2006)
COVID-19	"Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus "(World Health Organization)**.** The ongoing pandemic influences, business and consumer behavior (Nilsen Global Media, 2020)	Due to the pandemic I am forced to use technology more frequently	Nilsen Global Media (2020)
		As a consequence of COVID-19 my workplace have had extensive use of emerging technologies	Shaw, Kim & Hua (2020)
		Innovative technology solutions have helped me do my job during the pandemic	Chick et al. (2020)

4.0 Methodology

The main goal for a researcher is to present valid and reliable knowledge about reality. To be able to do this, the researcher needs a strategy on how to implement the research, this strategy is the method (Jacobsen, 2015, p. 15). The choice of method is based on the type of data the researcher wants to present (Dalland, 2017, p. 52).

The aim of this study is to find reasoning for the conceptual framework model presented in figure 4, to get a better understanding of the effect technology in the workplace has on the constructs of work-family conflict, stress and job satisfaction. We would like to look at these dependent variables in the context of the independent variables of overload (system overload, communication overload and information overload) and acceptance influences (performance expectancy, effort expectancy, social influence and facilitating conditions). We will in this chapter go through our choice of planned method, design and sample for our thesis.

4.1Research Design

Research designs can be classified into; 1) exploratory research, 2) descriptive research and 3) explanatory research (Neuman, 2006, p. 33-35). Exploratory research is used when there is none or little research on the field, and the purpose is to formulate more precise questions that future research can answer (Neuman, 2006, p. 33). Descriptive research is characterized by painting a picture using numbers or words to report on the background/context of a situation, with the aim to locate new data that contradict previous findings, with the focus on "how" and "who" questions (Neuman, 2006, p. 34-35). Explanatory research is characterized by explaining why events occur and to build, elaborate, extend and test theory (Neuman, 2006, p. 35).

In order to answer the research questions and to test our hypothesis, we have chosen to use explanatory non-experimental research with cross sectional research data collection. The purpose is to test a conceptual theoretical model, as presented in figure 4. The chosen design is based on our research question and how we determine to answer them (Johnson, 2001). Our conceptual model is developed from previous theory within/and connected to technology, our aim is to explain if there are causal factors that produce change. Our primary objective is explanatory because it answers yes on the following two questions determined by theory: *" a) Were the researchers trying to develop or test a theory about a phenomenon to explain "how" an "why" it operates? b)Were the researchers trying to explain how the phenomenon operates by identifying the causal factors that produce change in it?"* (Johnson, 2001, p. 9)

We have used a positivistic approach for our study, and therefore we can argue that we have a quantitative study (Neuman, 2006, p. 151). The positivist approach is characterized by a natural approach, where the researcher takes distance in the background and cant affect the end-result. In this way it is possible to study the society from an objective view (Neuman, 2006, p. 151).

Our study is based on previous literature and theories from researchers that have looked into how technology usage has affected the work experience for employees. Before we started to collect data we searched for previous literature and theories aiming to create a picture of how we thought reality would look like. When the data collection was done, we analysed the data to see if there was a correlation between the previous literature and the collected data. Thus, we can say that the study has a deductive direction (Neuman, 2006, p. 59).

Through this research we want to look at individuals and how they perceive the use of technology in the workplace, and how this affects them in their everyday life. The knowledge

will be established by looking into individuals' perceptions of their workplace situation regarding technology by answers in the questionnaire. In the social science theory and method this is called a methodological individualistic research approach. The individualistic approach focuses on the individual as the main object and is built on the belief that individual motives and behavior can explain phenomenon's (Jacobsen, 2015, p. 26).

We have now argued that we want to look at the individual as the main object. In order to do this, we have chosen to take distance from the individuals by collecting the data from a questionnaire. This has made it impossible for us to affect the answers of the respondents in any way. By taking distance it is more likely (and desirable) that if another researcher conducts an identical research, the results would be the same (Jacobsen, 2015, p. 26).

To be able to answer our research questions and hypothesis it is most beneficial for us to collect our data in numbers. By using numbers, it is possible to make statistical analyses of the data, which again can give us a precise picture of the data collection. Since our data collection is quite big, it makes it easier for us to analyze the data with numbers, unlike if we had chosen to use words. Also, since numbers are not open for interpretations, it is a bigger chance that the findings can be generalized (Jacobsen, 2015, p. 26).

4.2 Sample

The primary goal for a researcher is to get a representative sample so that the results can be generalized about the population (Neuman, 2006, p. 219). The population can be explained as all the examination units one wishes to say something about (Jacobsen, 2015, p. 87). In our study we define our population as …….. Neuman (2006, p. 224) describes the sampling element as "*... the unit of analysis or case in a population*".

Because we have limited information about the population, we have utilized nonrandom sampling (Neuman, 2006, p. 220). We have tried to find statistics over technology usage in the workplace in Norway, but did not succeed. Thus, we have not been able to mathematically calculate our sampling size.

Our respondents were recruited from Facebook and therefore they had the opportunity to decide if they wanted to participate in the research or not. Based on this we can say that our type of sampling is similar to haphazard (Neuman, 2006, p. 220; Jacobsen, 2015, p. 302). We are aware about the disadvantages about this type of sampling type, and will take this in consideration when we talk about our results.

Our sampling has characteristics drawn to the snowball sampling type, in regards to people choosing to share our post on Facebook with their friends as well. The people who chose to share our post were individuals in the age frame from 25-60 years, thus, this type of sampling made it possible for us to get respondents from a wide range of backgrounds.

4.3. Data collection

Our data collection is based on a questionnaire, which gives us the possibility to ask a large number of people a dozen of questions in a short time frame (Neuman, 2006, p. 43). Considering our quantitative method, it was natural for us to use this type of data collection, and it is notable to say that questionnaires is the most used data-gathering technique in social science and in related applied fields (Neuman, 2006, p. 272). By using a questionnaire, we can utilize charts, graphs, or tables and analysis with statistics (Neuman, 2006, p. 43). There are several ways of collecting information and answers to the questionnaire, e.g. through mail, phone interview, personal interview and web-based questionnaire (Jacobsen, 2015, p. 277; Neuman, 2006, p. 299-302).

In our data collection we found it sufficient to use a web-based questionnaire, especially since this method is very time-saving and cost-effective (Neuman, 302; Jacobsen, 2015, p. 278). We used our private Facebook profiles to promote our questionnaire. The post explained what the questionnaire was about at what we were looking at, thus, people could easily understand if they were suitable for participating in the questionnaire. From just our private profiles we had a range of approximately 2650 people. After we shared it, 12 other Facebook profiles shared it as well. This gave us a wide range of possible respondents to the questionnaire.

The questionnaire was available for respondents in about 14 days, before we decided to close for further participation and start analyzing the data. Our data collection is based on gathering data during a single, relatively brief time period. Thus, we can argue that we have a cross-sectional research (Johnson, 2001).

4.4. Measurements

All the questions in our questionnaire are based on previous questions from other researchers within the same field (Appendix 2). The most used method for designing a question is using statements, something we also have chosen to do. By using this method, it “forces” the respondent to take a stand (Jacobsen, 2015, p. 268).

In order to answer our research questions and test our conceptual framework we have chosen to use multiple dependent variables. The dependent variables can be described as the phenomenon that are going to be explained (Neuman, 2006, p. 161). Instead of just having one dependent variable, we aim to gain a deeper understanding of the phenomenon and the connections between the constructs by having multiple dependent variables. We are then able to test the connections not only one way, but also the other way around. Our main dependent variables will be our constructs; work-family conflict, stress and job satisfaction.

The independent variable influences the dependent variable (Neuman, 2006, p. 161; Jacobsen, 2015, p. 84). On the background of previous studies and theory we have chosen to use overload and acceptance as independent variables, to find out more how they influence the dependent variables. Overload will include system overload, communication overload and information overload as independent variables, while acceptance independent variables will be: performance expectancy, effort expectancy, social influence and facilitating conditions. Having these as our independent variables also supports our proposed conceptual model (figure x.).

We have also chosen to include control variables in the questionnaire. Neuman (2006, p. 362) defines a control variable as "*A "third" variable that shows whether a bivariate relationship holds up to alternative explanations; it can occur before or between other variables*". The control variables we have chosen to include are; gender, age, education, relationship status, family status and work situation. These control variables give us the opportunity to see if the bivariate relationship is spurious (Neuman, 2006, p. 362).

The respondents answer the questions in the questionnaire by selecting between scales from 1-7, where 1 indicates "strongly disagree", and 7 indicates "strongly agree". This type of scale is referred to as "*likert-scale*", and is often used when several questions are asked to measure a more theoretical term (Jacobsen, 2015, p. 268). It is best to use four to eight categories (Neuman, 2006, p. 207), where a scale with uneven numbers of five and seven is preferred to give the best result. The drawback with this scale is that the respondent risks getting in an answering "rhythm" that affects their answers (Jacobsen, 2015, p. 269).

Table 3

Measurement likert scale

Scale measurement	Scale value
Strongly disagree	1
Disagree	2
Disagree somewhat	3
Neither agree nor disagree	4
Agree somewhat	5
Agree	6
Strongly agree	7

Note. Conducted from Jacobsen, D., I. (2015, p. 268). *Hvordan gjennomføre undersøkelser* (3. edt.). Oslo: Cappelen Damm Akademisk

4.5. Ethics in the research

Ethical questions arise in all stages of the research, and needs to be taken into consideration throughout the entire research process (Kvale & Brinkmann, 2009, p. 62). The study will be conducted in an honest and accurate manner, with an ethical responsibility. Our research questionnaire does not ask for any sensitive or private information that can be traced back to the respondents at a later time, therefore it was not necessary to apply for a research approval from the Norwegian Centre for Data Research (NSD). The first slide of our questionnaire includes a statement of the purpose for the research (Appendix 2), where possible respondents are also informed that data collected from the questionnaire will be deleted after the projects end, and not be used for any further occasions. Respondents then get the choice of participating further in the study by agreeing to participation and ticking of a box “yes” or “no”.

4.6 Analysis

In the first part of the analysis we will present our data collection and sample with the characteristics with the respondents demographics. When we have data that is ordinal it is

beneficial to check both the skewness and kurtosis of the data to see how the distribution is and to discover possible clusters (Huizingh, 2007, p. 19). “The skewness measures the type and degree of asymmetry of a distribution” (Huizingh, 2007, p. 19), while the kurtosis “... is a measure of the type and degree to which the observations cluster around a central point relative to the normal distribution” (Huizingh, 2007, p. 19), if it peaks. It is not recommended to use multiple regression analysis on samples that are small, where the distributions of scores is very skewed (Palland, 2010, p. 150).

There are two central issues in conducting a research; reliability and validity (Neuman, 2006, p. 188; Jacobsen, 2015, p. 16). Reliability is synonymous with dependability and consistency (Neuman, 2006, p. 188; Jacobsen, 2015, p. 17). If there is high reliability, the same results will occur under the identical or same conditions (Neuman, 2006, p. 188; Jacobsen, 2015, p. 17). Validity refers to if the research has truthfulness and that it is comparable with the reality (Neuman, 2006, p. 188). Researchers strive to achieve reliability and validity in their research, but it's important to note that it is not possible to get it perfect (Neuman, 2006, p. 188).

In order to test the reliability of our questions, we have chosen to use Cronbach’s alpha in SPSS. The purpose of this test is to see if the different items measuring the same construct have a statistical correlation (Neuman, 2006, p. 190; Pallant 2010, p. 100). Cronbach's alpha is a statistic that provides an indication of the average correlation among all of the items that measure the same subjects. The value is ranged from 0-1, where a higher value indicates a higher reliability. The rule of thumb is that the value should be over .6, and ideally over .7 to define it as good answers (Chin, 1998). On the other hand, Palland (2010, p. 100) states that “*Values above .7 are considered acceptable; however; values above .8 are preferable*”.

By using factor analysis we can calculate if the construct we are looking into is a valuable factor and if there is inner consistency between the variables. Factor analysis is a data reduction technique, it is used to *“... reduce a large number of related variables to a more manageable number, prior to using then in other analyses such as multiple regression or multivariate analysis of variance”* (Pallant, 2010, p. 181) In our questionnaire we have used several questions to measure one term (e.g. communication overload), from table 2 we show that the questions are obtained from reliable sources that have used the same questions to test the same variable in previous studies. Still, we have conducted a confirmatory factor analysis to see if these questions fit together and if they measured the term they were supposed to, considering we have obtained questions from various sources. Then the findings

will tell us if this mutual factor for the questions is adequate and can be used in further analysis, e.g. regression.

The independent-samples t-test is used when you want to look at the different mean scores between two different groups. It is appropriate to use the independent-samples t-test in this case because we only want to look at the demographic variables gender and "kids/no-kids". The independent-samples t-test will tell us if there is a significant difference in the mean scores in work-family conflict and work stress for men and women (H1 and H2) (Pallant, 2010, p. 105). We will also find out if there is a significant difference in experienced WFC, communication overload and stress towards the respondents "family status" (H6, H7 and H8). The power of the t-test increases with a large sample size, an alpha level set to .05/.01 and the strength of difference between the groups (Pallant, 2010, p. 207). We will use a confidence interval on 95% as our margin of error. To determine if there are any differences between gender and when it comes to perceived work-family conflict and work stress, we have chosen to use the independent-samples t-test.

In order to see if there are any differences in age up against factors (system overload, effort expectancy and facilitation conditions, we have chosen to use the one-way analysis of variance (one-way ANOVA). We have chosen to use the one-way between-groups ANOVA because our independent variable, age, hase more than three levels. The one-way between-groups ANOVA will tell us if there are any differences in the mean scores among the age groups in system overload, effort expectancy and facilitating conditions (Pallant 2010, p. 249). It is important to note that this test will not tell us if there are any significant differences (Palland, 2010, p. 105).

The purpose to answer research question 1 is to explore the relationship between technology acceptance and technology overload on work-family conflict, work stress and job satisfaction. We want to see how much of the variance in WFC, WS and JS can be explained by Acceptance and Technology Overload. In order to find out the variance and what variable is the best predictor, we will use multiple regression analysis (Pallant, 2010, p. 118). WFC, WS and JS will switch on being the one continuous dependent variable. Acceptance and Overload are the continuous independent variables. Our data has one sample with scores on all measures and are therefore appropriate to the essential features. For this purpose, we transformed the questions into compute variables, this gave us one target variable for acceptance (PE + EE + SI + FC) and one for overload (IO + CO + FO). We have chosen a standard multiple regression with the confidence intervals level of 95%. The SPSS output gives us a correlation table, here we can check that the independent variables show some

relationship with the dependent variable, above .3 is preferably. It is beneficial to check the normal P-plot of regression standardized residual and the scatterplot, as these spss outputs visualize the data set. We want the Normal P-plot to have points in a reasonably straight diagonal line from bottom to top as this suggest that there are no major deviations from normality (Pallant, 2010, 158). If The Scatterplot is distributed roughly rectangular, this is desirable. In model summary we find R square and adjusted R square, the R square tells us how much of the variance in the D.V that can be explained by the I.V. Adjusted R square is a more accurate measure that provides a better estimate of the variance. Furthermore we are interested in comparing each independent variable's contribution to changes in the dependent variable. We find this looking at the Beta value in the Coefficient table output in SPSS. The Beta value tells us the contribution each independent value has to the dependent value. The higher the Beta value is, the more will the independent variable influence the dependent variable. Beta ranges from -1 to 1, whereas a value > 0 will indicate that it is a positive correlation, and a value < 0 this indicates that there is a negative correlation. In the same table, the column sig. will tell us if the Beta value is making a statistically significant unique contribution to the equation, since we have a 95% confidence interval, sig. values greater than .05 is accepted as significant (Pallant, 2010, p. 161).

Finally, to answer research question 4, we used partial correlation analysis. This analysis allows us to control for an additional variable, *"This occurs when the relationship between two variables (A and B) is influenced, at least to some extent, by a third variable (C)"* (Pallant, 2010, p. 143). The spss output gives us a table with two sections, where we need to compare the two correlation coefficients to ..*"see wheather controlling for the additional variable had any impact on the relationship between your two variables"(* Pallant, 2010, p. 146).

4.7. Screening & cleaning the data

Before exporting the data from the questionnaire into SPSS we conducted a screening and cleaning of the obtained data sample.

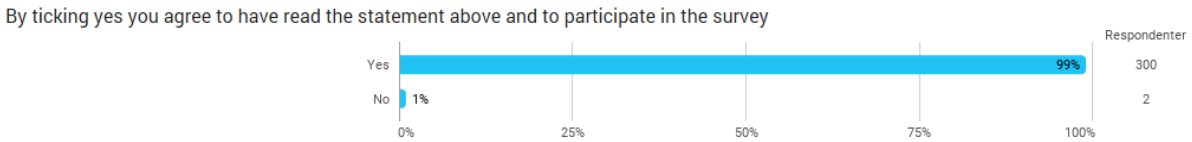

Figure 5. Agreed to participation

From figure 7 we see that a total of 300 respondents ticked “yes” and agreed to a participation in the study, while 2 respondents ticked “no” and stopped the survey there. This indicated that the statement (Appendix 2) was a positive indicator for participation in the research.

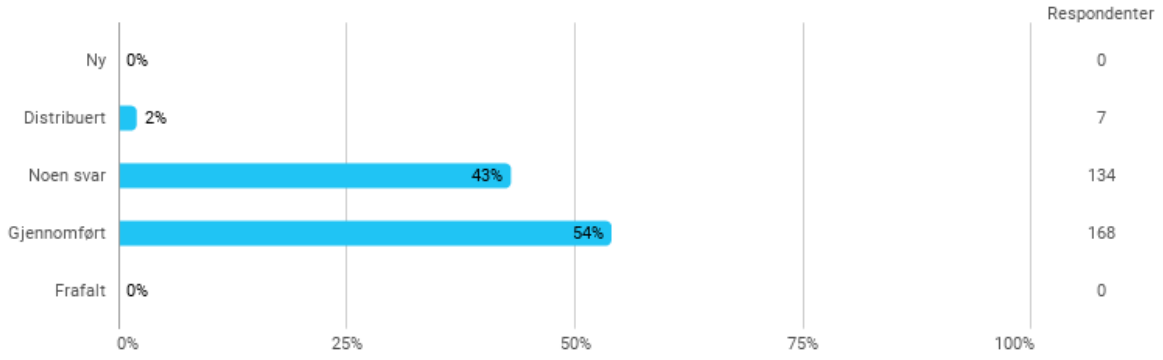

Figure 6. Fulfillment of the survey

On the other hand, figure 8 tells us that of the 300 respondents who agreed to a participation in the study, only 168 of them have conducted the entire questionnaire. There can be various reasons for this, and we will discuss this later in the thesis. Going further in our research we will only include the data of the 168 fulfilled responses.

In our data collection we used the program SurveyXact. Before transferring the data to excel and SPSS, we deleted the responses that were not complete. We got a total of 168 completed answers, 134 partly completed and 7 distributed (Figure 8). The total 141 partly completed/distributed was deleted. Then the remaining data set of 168 responses got transferred to excel, where we defined the variables before further transference to SPSS. To check the data for errors once distributed to SPSS, we read through all 168 data collected from respondents and double checked that there were no values that fell outside the value scope for each variable. We also checked the categorical demographic variables for errors by looking at the minimum and maximum values (Pallant , p. 44). All scores were within the

possible range of the variable (Appendix 3). Table 4 presents how we then coded the questionnaire in SPSS, we will also refer to the questions with the coding going forward.

Table 4
Questions coding overview (total q= 61)

Subject	Coding	Questions	Total number
Technology in the Workplace	TW	Q8-Q9	2
Technology Acceptance	TA	Q10	1
Performance Expectancy	PE	Q11-Q15	5
Effort Expectancy	EE	Q16-Q20	5
Social Influence	SI	Q21-Q27	7
Facilitating Conditions	FC	Q28-34	7
Information Overload	IO	Q35-Q39	5
Communication Overload	CO	Q40-Q42	3
System Feature Overload	FO	Q43-Q47	5
Work Stress	WS	Q48-Q53	6
Work-Family Conflict	WFC	Q54-Q60	6
Job Satisfaction	JS	Q61-Q65	6
COVID-19	C19	Q66-Q68	3

Note.

5.0 Data Analysis

Our analysis will be conducted from the data program IBM SPSS version 25. Furthermore we will present the data collection sample and characteristics of the respondents.

5.1. Data collection and sample

After eliminating the possibility of errors in the data, we begin the descriptive phase of the data analysis, we do this for a test of assumptions (Pallant, 2010, p. 53). The descriptive statistics of respondent's profile are presented in Table 5. From the 168 respondents we have included in our research, 109 respondents were women (65%), and 59 respondents were men (35%). Further we can see that 47% of the respondents were in the age group 19-29 years, 14% were 30-39 years, 13% were 40-49 years, 23% were 50-59 years, and 3% were 60+ years. Mostly of our respondents had either finished or started a bachelor's degree (43%) or a master's degree (26%). 77 respondents (46%) said that they had kids, while 91 respondents (54%) said that they didn't have kids. We also looked at the respondents' work status, where 130 respondents (77%) reported that they were in a full-time job, and 38 respondents (23%) reported they had a part-time job.

Table 5
Respondents profile (n=168)

	Measure scale	Frequency	Percent (%)
Gender			
Female	1	109	64,9
Male	2	59	35,1
Age			
18-29	1	79	47,0
30-39	2	23	13,7
40-49	3	22	13,1
50-59	4	39	23,2
60+	5	5	3,0
Education Level			
No education	1	3	1,8
High School	2	21	12,5
Certificate of Apprenticeship	3	17	10,1
University Bachelor degree	4	72	42,9
University Master degree	5	43	25,6
University PhD. degree	6	2	1,2
Other	7	10	6,0
Relationship Status			
Single	1	54	32,1
In a Relationship	2	70	41,7
Engaged	3	4	2,4
Married	4	40	23,8
Kids			
Yes	1	77	45,8
No	2	97	54,2
Work Situation			
Full-time worker	1	130	77,4
Part time worker	2	38	22,6

Note:

We see from Table 6, that the following questions have a higher Kurtosis statistic value that (-2, +2): TW1, TA, PE1, PE 2, JS2, JS1, SO1, FC1, FC2, SI6, EE1. This tells us that our respondent answers cluster among the same peak of the likert scale, a reason for that can be that the questions are statements most people agree upon. While for the skewness statistics only two questions report higher values that -2, +2, this regards question EE1 and TA (Appendix 6). We will have this in mind continuing forward with the analysis.

Table 6:

Descriptive Statistics Questions

Q's	N	Minimum	Maximum	Mean	Std.	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Deviation Statistic	Statistic	Std. Error	Statistic	Std. Error
TW1	168	1	7	5,83	1,257	-1,809	,187	4,258	,373
TW2	168	1	7	3,30	1,554	,372	,187	-1,105	,373
TA	168	1	7	6,32	,805	-2,307	,187	11,082	,373
PE1	168	1	7	5,99	1,302	-1,753	,187	3,101	,373
PE2	168	1	7	5,83	1,260	-1,624	,187	3,206	,373
PE3	168	1	7	5,42	1,311	-1,230	,187	1,804	,373
PE4	168	1	7	5,52	1,299	-1,366	,187	1,957	,373
PE5	168	1	7	5,08	1,226	-,575	,187	,643	,373
EE1	168	1	7	5,96	1,088	-2,101	,187	6,188	,373
EE2	168	1	7	5,31	1,153	-1,128	,187	1,902	,373
EE3	168	1	7	4,79	1,169	-,620	,187	,163	,373
EE4	168	1	7	5,48	1,218	-1,154	,187	1,598	,373
EE5r	168	1	7	4,76	1,653	-,498	,187	-,838	,373
SI1	168	1	7	4,79	1,296	-,463	,187	,374	,373
SI2	168	1	7	4,67	1,351	-,490	,187	,242	,373
SI3	168	1	7	4,85	1,508	-,623	,187	-,217	,373
SI4	168	1	7	5,24	1,239	-,903	,187	,935	,373
SI5	168	1	7	5,59	1,287	-1,036	,187	1,065	,373
SI6	168	1	7	5,77	1,153	-1,576	,187	3,625	,373
SI7	168	1	7	4,93	1,461	-,830	,187	,327	,373
FC1	168	1	7	5,71	1,102	-1,493	,187	3,231	,373
FC2	168	1	7	5,50	1,137	-1,224	,187	2,071	,373
FC3	168	1	7	5,68	,962	-1,519	,187	4,613	,373
FC4	168	1	7	5,00	1,322	-,723	,187	,218	,373
FC5	168	1	7	5,20	1,337	-,883	,187	,452	,373
FC6	168	1	7	5,39	1,266	-1,156	,187	1,290	,373
FC7r	168	1	7	4,86	1,572	-,407	,187	-,967	,373
IO1r	168	1	7	3,39	1,414	,459	,187	-,489	,373
IO2	168	1	7	5,07	1,184	-1,266	,187	1,815	,373
IO3r	168	1	7	3,79	1,432	,260	,187	-,639	,373
IO4r	168	1	7	3,76	1,441	,375	,187	-,442	,373
IO5	168	1	7	5,35	1,106	-1,028	,187	1,217	,373
CO1	168	1	7	4,23	1,559	-,182	,187	-,856	,373
CO2	168	1	7	3,83	1,623	,019	,187	-1,120	,373
CO3	168	1	7	3,49	1,608	,393	,187	-,971	,373
SO1	168	1	7	5,65	1,056	-1,540	,187	4,159	,373
SO2r	168	1	7	4,10	1,587	-,040	,187	-1,068	,373
SO3	168	1	7	5,16	1,080	-,903	,187	1,008	,373
SO4r	168	1	7	4,75	1,558	-,354	,187	-1,027	,373
SO5r	168	1	7	4,03	1,390	,149	,187	-,721	,373
WS1	168	1	7	4,19	1,563	-,102	,187	-,755	,373
WS2	168	1	7	3,73	1,538	,229	,187	-,565	,373
WS3	168	1	7	3,12	1,396	,506	,187	-,547	,373
WS4	168	1	7	3,73	1,491	,052	,187	-,892	,373
WS5	168	1	7	4,23	1,638	-,322	,187	-,767	,373
WS6	168	1	7	4,05	1,684	-,083	,187	-,952	,373

WFC1	168	1	7	3,44	1,807	,325	,187	-1,063	,373
WFC2	168	1	7	3,61	1,818	,146	,187	-1,274	,373
WFC3	168	1	7	3,49	1,758	,278	,187	-1,037	,373
WFC4	168	1	7	3,42	1,773	,387	,187	-1,020	,373
WFC5	168	1	7	3,76	1,786	,138	,187	-1,118	,373
WFC6	168	1	7	3,66	1,804	,098	,187	-1,198	,373
JS1	168	1	7	5,70	1,120	-1,317	,187	2,106	,373
JS2	168	1	7	5,70	1,086	-1,397	,187	3,174	,373
JS3	168	1	7	5,57	1,167	-,881	,187	,813	,373
JS4	168	1	7	4,97	1,490	-,828	,187	,303	,373
JS5	168	1	7	5,08	1,751	-,641	,187	-,670	,373
C191	168	1	7	4,74	1,909	-,471	,187	-,998	,373
C192	168	1	7	4,45	1,797	-,335	,187	-,956	,373
C193	168	1	7	4,68	1,755	-,584	,187	-,669	,373

Note:

5.2 Cronbach's Alpha

When we used Cronbach's Alpha to check that all items were measuring the same characteristics (Pallant, 2010, p. 100), we quickly saw that 5/11 subjects tested came out with a weak Cronbach's Alpha value (Appendix 4). To find out what was underlying, we looked at the descriptive statistical frequencies for each question in the subjects category. Here we could pin out what question that had answered in a different side of the scale, resulting in a weak Cronbach's Alpha value. The reason for answers on different sides of the likert scale, is due to how the questions are formulated. E.g. under job satisfaction the last question "*I just hate getting up to go to work in the morning*" will give a different answer scale than the first question "*My work gives me a sense of accomplishment*". We also used the item total-statistics and looked at "Cronbach's alpha if item deleted", here we could easily see which question to eliminate to gain a greater value. "*Low values (less than.3) here indicate that the item is measuring something different from the scale as a whole*" (Pallant, 2010, p.100). For an example under Information overload, both question IO2 and IO5, had to be eliminated to gain a higher value. To eliminate questions, would result in losing valuable data from our sample. Instead we solved this by reversing negative worded questions that affected the Cronbach's Alpha value, into reversed questions by switching the likert scale "upside down" (Pallant, 2010, p. 84-86). We reversed the following negatively worded items: Effort expectancy question 5, Facilitating Conditions question 7, Information Overload question 1, 3 & 4, System Feature Overload question 2, 4 & 5, and finally Job Satisfaction question 5(Appendix 4). This resulted in a greater and more accurate Cronbach's Alpha value, shown in table 7 (See Appendix 4 for difference). The reason for reversing questions within subjects

that already gave an accepted value, is that we later in our analysis will merge the different subjects into one common variable to measure technology acceptance and technology overload. Still, we do not reverse the questions under WFC and WS, since they are all asked in the same manner and will not be transformed into one computed variable.

Table 7:

Cronbach's Alpha

	Cronbach's Alpha Results			
Subject	Original Items	Reversed Items	Questions Reversed	Value Status
Performance Expectancy	.831	-		Preferable
Effort Expectancy	.326	.703	EE5	Accepted
Social Influence	.782	-		Accepted
Facilitation Conditions	.630	.793	FC7	Preferable
Information Overload	.317	.620	IO1, IO3 & IO4	Questionable
Communication Overload	.812	.812	CO1, CO2 & CO3	Preferable
System Feature Overload	.046	.740	SO2, SO4 & SO5	Accepted
Work Stress	.781	-		Accepted
Work Family Conflict	.900	-		Preferable
Job Satisfaction	.046	.802	JS5	Preferable
COVID-19	.868	-		Preferable

Note. Adapted from "Interpreting the output from reliability", Pallant, J. (2010, p. 100). *SPSS survival manual : A step by step guide to data analysis using SPSS* (4th ed.). Maidenhead: McGraw-Hill Open University Press.

5.3 Kaiser- Meyer - Olkin measure of sampling adequacy and Bartlett's test

The measure we wanted to check under factor analysis is Kaiser- Meyer- Olkin (KMO) measure and Bartlett's test. We see that the KMO values presented in table 8 are over .6, which is suggested as the minimum value for a good factor analysis. Bartlett's test of Sphericity has a sig. (p value) that is ,000, this is adequate with $p<.05$, and show a significant factor analysis that is appropriate (Pallant 2010, p. 183) From Table 8, we see that the KMO we see that all factors are above .6, this means that our dataset is suitable for Factor Analysis (Pallant, 2010, p. 192). Bartlett's test of sphericity value is significant as It Is smaller than .05. The SPSS output is shown in appendix 5.

Table 8:
PCA factor analysis - KMO & Bartlett's output

	Factor	KMO	Bartlett's
Performance Expectancy	PE	.840	.000
Effort Expectancy	EE	.750	.000
Social Influence	SI	.747	.000
Facilitating Conditions	FC	.788	.000
Information Overload	IO	.623	.000
Communication Overload	CO	.699	.000
System Feature Overload	SO	.767	.000
Work Stress	WS	.702	.000
Work Family Conflict	WFC	.850	.000

Job Satisfaction	JS	.802	.000
COVID-19	C19	.722	.000

Note.

5.4. Independent- samples t-test

We conducted an independent-samples t-test to see a possible difference in gender on the dependent variables WFC (H1) and work stress (H2). We used a confidence interval on 95%, and measured the groups on the total WFC and WS. We re-coded the questions into one variable for each category, so we could measure all the questions together. From Figure 7, we see that mean scores are almost identical for reported WFC, but male scores higher on work stress mean 24,0>22,5. In the SPSS output independent samples test, we use the line equal variances assumed under Levene's Test for Equality of Variances (Figure 8), since the sig. value is >.05 (Pallant, 2010, p. 241). We then look at Sig. (2-tailed), none of the values are equal or less than .05, therefore there is no significant difference between male and female on WFC and WS. Based on this we keep our null hypothesis H1 0 and H2 0.

Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
TotalWFC	1 Female	109	21,04	8,451	,809
	2 Male	59	21,98	9,378	1,221
TotalWS	1 Female	109	22,50	6,324	,606
	2 Male	59	24,07	6,599	,859

Figure 7: T test gender – work family conflict & stress

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
TotalWFC	Equal variances assumed	,900	,344	-,666	166	,506	-,946	1,420	-3,750	1,857
	Equal variances not assumed			-,646	108,899	,520	-,946	1,465	-3,850	1,957
TotalWS	Equal variances assumed	,274	,602	-1,515	166	,132	-1,572	1,038	-3,622	,477
	Equal variances not assumed			-1,496	114,767	,137	-1,572	1,051	-3,655	,510

Figure 8: T- test gender – work family conflict & stress sig. (2-tailed)

Looking for differences between family status and perceived work family conflict, stress and communication overload, our finding from the t-test is presented in Figure 9 & 10. We can see from the table that there are no significant differences in perceived work-family conflict, work stress or communication overload when it comes to family status, Sig.(2-tailed) values >.05. Thus, we are going to keep the null hypothesis H6 0, H7 0 and H8 0.

Group Statistics

	"Do you have kids?"	N	Mean	Std. Deviation	Std. Error Mean
TotalWFC	1 Yes	77	20,34	8,159	,930
	2 No	91	22,24	9,213	,966
TotalWS	1 Yes	77	22,27	6,251	,712
	2 No	91	23,70	6,570	,689
NEWTotalCO	1 Yes	77	11,88	3,910	,446
	2 No	91	12,93	4,187	,439

Figure 9: T-test family status – WFC, WS, CO

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
TotalWFC	Equal variances assumed	1,436	,233	-1,406	166	,162	-1,904	1,354	-4,578	,770
	Equal variances not assumed			-1,420	165,641	,157	-1,904	1,341	-4,551	,743
TotalWS	Equal variances assumed	,037	,848	-1,438	166	,152	-1,431	,995	-3,395	,534
	Equal variances not assumed			-1,444	163,705	,151	-1,431	,991	-3,387	,526
NEWTotalCO	Equal variances assumed	,363	,547	-1,671	166	,097	-1,051	,629	-2,293	,191
	Equal variances not assumed			-1,680	164,361	,095	-1,051	,625	-2,286	,184

Figure 10: T-test family status – WFC, WS, CO. Sig. (2-tailed)

5.5 One-way ANOVA- between groups

To analyze our hypothesis H3, H4, H5 & H9 we will conduct a one-way between-groups ANOVA. When using age as the independent grouping variable, we will test it towards the dependent variable system overload, effort experience, facilitating condition, using a 95% interval.

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
TotalSO	Between Groups	139,165	4	34,791	1,570	,185
	Within Groups	3613,115	163	22,166		
	Total	3752,280	167			
TotalEE	Between Groups	162,822	4	40,705	2,266	,064
	Within Groups	2928,696	163	17,967		
	Total	3091,518	167			
TotalFC	Between Groups	604,496	4	151,124	4,775	,001
	Within Groups	5158,498	163	31,647		
	Total	5762,994	167			

Figure 11: One-way ANOVA – Age – SO, EE, FC.

The column marked sig. in ANOVA figure 11 is our p-value. If the p-value is less or equal to .05 there is a significant difference between the groups on their mean scores on the dependent variable (Pallant, 2010, p. 253). Figure 11 there is detected a significant difference between the IV and DV with the p value ,001 on facilitating conditions, therefore we can accept our alternative hypothesis H5 a. The other p-values are not significant, so we keep H3 0 and H4 0.

ANOVA

TotalWFC

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	88,252	6	14,709	,186	,981
Within Groups	12760,867	161	79,260		
Total	12849,119	167			

Figure 12: One-way ANOVA – Education – WFC.

Furthermore we will test education (IV) towards work family conflict (DV), to find out what hypothesis H9 0/a we should keep or accept. The p-value .981 from figure 12 tells us that there is no significant difference, based on this finding we will keep H9 0, “There is no difference in experienced work-family conflict and level of education”.

The t-test and one-way ANOVA analysis were the analysis conducted to be able to answer on RQ3.

5.6 Multiple Regression Analysis

To find answers to both RQ1 and RQ2, we have used multiple regression analysis. This analysis abled us to test set of two or more continuous independent variables (I.V) on one continuous dependent variable (D.V). All the SPSS output is shown in appendix 7.

First, we ran a multiple regression analysis with WFC (D.V.) and stress, overload, accept & job satisfaction (I.V). The p-plot of regression standardized residual are in a reasonable straight line, the scatterplot is distributed somewhat in a rectangular. R-Square was ,523, this tells us that 52,3% of the variance in WFC (D.V) can be explained by the IV´s. The adjusted R Square is even more accurate, 27,4%. Under Table x, we see the standardized coefficients Beta and the sig.; work stress have a significant positive correlation to WFC, while job satisfaction have a significant negative correlation to WFC. The regression analysis resulted in keeping H11 0, H12 0 and accepting H10 a and H13 a.

The second multiple regression analysis had stress as the dependent variable and WFC, O, A, JS and C19 as independent variables. Here we included covid-19 as an IV to investigate RQ4 and H23. The P-plot had dots close to the straight line, no major deviations from normality, and a scatterplot distributed somewhat around the same area, but not making up a clear rectangular. R square tells us 70,2% of the variance in stress is explained by the I.V's, adjusted R square 27,4%. WFC, Acceptance and COVID-19 have a significant positive correlation to work stress, while overload have a significant negative correlation to work stress. We can accept the alternative hypothesis H16, H15, H14 and H23, indicating that there is a significant relationship. And we keep null hypothesis H17.

The third multiple regression analysis measured the correlation between job satisfaction (D.V) and WS, WFC, O and A (I.V). The normal P-Plot does not have a strong desirable straight line, this indicates some deviations from normality in the data, also the scatterplot is distributed on a large scale. R square, 26% and Adjusted R Square, 6,8% tells us that the independent variables does not explain well the variance in job satisfaction. The beta coefficients that was significant was WFC with -,190 and acceptance ,201. Alternative hypothesis H20 & H18 is accepted while we keep null hypotheses H19 and H21.

Table 9

Multiple Regression analysis values

	R square	Adjusted R Square	Standardized Coefficients Beta		Sig. (p-value)
WFC	,523	,274	WS	,391	,000
			O	-,154	,099
			A	,075	,341
			JS	-,148	,031
Stress	,702	,493	WFC	,279	,000
			O	-,483	,000
			A	,202	,002
			JS	-,095	,113
			C19	,234	,000
Job satisfaction	,260	,068	WS	-,062	,541
			WFC	-,190	,031
			O	-,086	,417
			A	,201	,024

Note: Overload (O) and Acceptance (A)

5.7 Partial Correlation – analysis

To answer research question 4, we conducted a partial correlating analysis to see if the ongoing COVID-19 pandemic have any impact on the variables stress and work family conflict. The none total correlation coefficient had a value of ,491 (sig. ,000) compared to the total correlation coefficient ,483 (sig. ,000). It was interesting to see if by changing WFC to Overload, the result whould show something else. The new partial correlation analysis had a difference on -,541(none total) vs. -,525 (total). The connection between stress and overload is somewhat explained by covid-19. In appendix 8 the SPSS output is provided. Finally, to gain a greater insight in covid-19 and respondents answer we conducted a simple compare means, frequency analysis on the questions. The result is shown in in Figure x, x and x. It tells us that the respondents have answered in all sides of the Likert scale, but the majority falls on the top side.

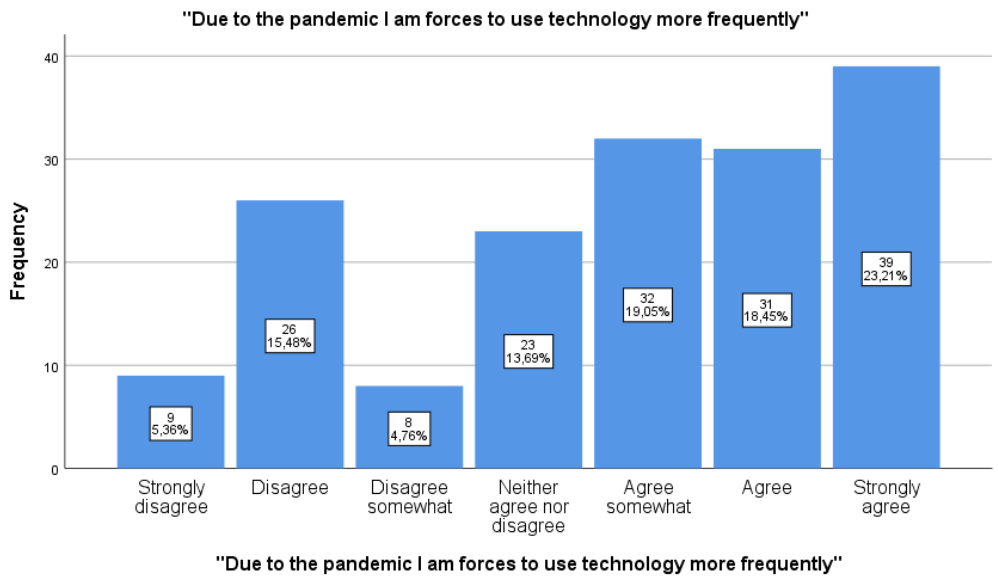

Figure 13: Frequency covid-19 question 1

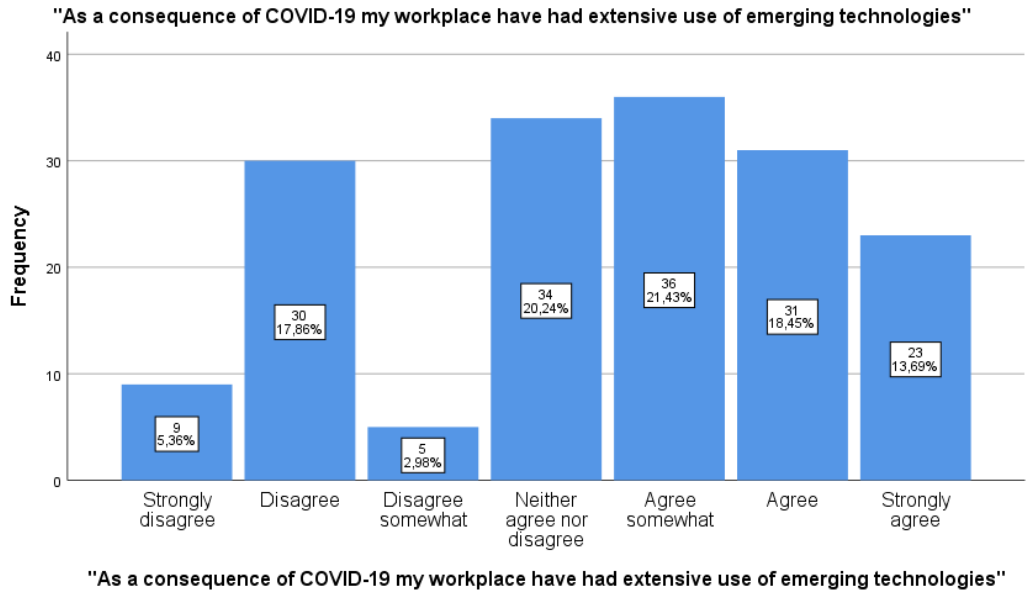

Figure 14: Frequency covid-19 question 2

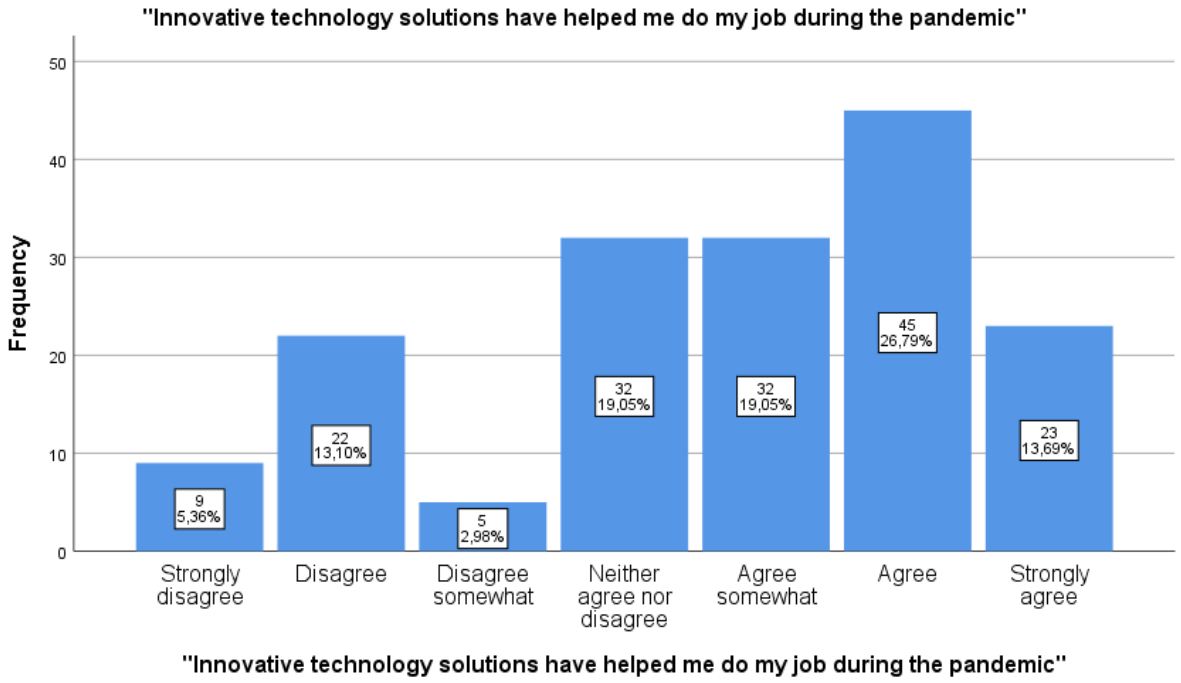

Figure 15: Frequency covid-19 question 3

5.8 Additional Findings

When we conducted all the analysis in SPSS we found it interesting to see if there were other significant relationship we had not detected by testing our hypothesis. Several extra analyses were undertaken in SPSS, this resulted in some new interesting findings.

An independent t-test to measure the difference between experienced facilitating conditions and gender, resulted in a p-value of ,041, telling us there is a significant difference.

Group Statistics

	"Do you have kids?"	N	Mean	Std. Deviation	Std. Error Mean
TotalFC	1 Yes	77	36,3247	5,79347	,66023
	2 No	91	38,1758	5,83970	,61217

Figure 16: T- test – Family orientation - FC

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
TotalFC	Equal variances assumed	,097	,756	-2,055	166	,041	-1,85115	,90096	-3,62997	-,07233
	Equal variances not assumed			-2,056	161,839	,041	-1,85115	,90036	-3,62912	-,07318

Figure 17: T- test – Family orientation – FC – Sig. (2-tailed)

Since we kept almost all our null hypothesis in both age and education, we wanted to run some more tests in SPSS to check that we did not overlook any possible significant differences. One-way between- groups ANOVA for age and education were run on all subjects (PE, EE, FC, SI, SO, IO, CO, WS, WFC, C19, JS) in two separate test, it resulted in several significant findings. Difference in experienced PE, SI and C19 and education were found, additionally a difference in experienced SI, FC, IO, CO and age were found. The significant findings are shown in Figure x and x, and appendix 9.

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
TotalPE	Between Groups	304,174	6	50,696	2,159	,050
	Within Groups	3779,802	161	23,477		
	Total	4083,976	167			
TotalSI	Between Groups	553,583	6	92,264	2,587	,020
	Within Groups	5741,750	161	35,663		
	Total	6295,333	167			
TotalC19	Between Groups	426,756	6	71,126	3,253	,005
	Within Groups	3520,363	161	21,866		
	Total	3947,119	167			

Figure 18: One-way ANOVA – Education – PE, SI, C-19

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
TotalSI	Between Groups	353,881	4	88,470	2,427	,050
	Within Groups	5941,452	163	36,451		
	Total	6295,333	167			
TotalFC	Between Groups	604,496	4	151,124	4,775	,001
	Within Groups	5158,498	163	31,647		
	Total	5762,994	167			
TotalIO	Between Groups	165,036	4	41,259	2,459	,048
	Within Groups	2735,243	163	16,781		
	Total	2900,280	167			
NEWTotalCO	Between Groups	222,902	4	55,725	3,544	,008
	Within Groups	2562,717	163	15,722		
	Total	2785,619	167			

Figure 19: One-way ANOVA – Age – SI, FC, IO, CO

After analyzing the dependent av independent variables in the multiple regression analysis, we got curious to see how the result would turn out if we had not included acceptance and overload as computed variables, but instead as EE, PE, FC, SI and CO, IO, SO. Therefore we conducted the multiple regression analysis again in the same way, but with the inclusion of the ”single” variables instead, the findings can be seen in appendix 10. We found significant correlation relationship between work family conflict and social influence (B= ,176, Sig. ,049) , system feature overload (B=-,223, Sig. ,041) and communication overload (B=-,293, Sig. ,003). This is very interesting since overload in the computed variable did not have a significant relationship to WFC.

Further we fount that Stress scientifically correlated with the independent variables SI (B= ,279, sig. ,000), IO (B= -,172, sig. ,050), SO (B= -,235, sig. ,012) and CO (B= -,238, sig. ,004). This finding correspondent with the first multiple regression analysis with the compute variable, but gained insightful information of the underlying independent variables.

Finally we did the same with job satisfaction as the dependent variable, but we did not find any new significant relationships, still this is a valuable finding as it provides information about the connection between the DV and IV.

6.0. Discussion

6.1. RQ1 “Does technology overload and technology acceptance have an influential relation to the constructs of work-family conflict, work stress and job satisfaction?”

To answer research question 1 we used multiple regression analysis so that we could compare several independent variables to see which set of these variables had the ability to predict the dependent variable the best way. This tells us how much of the variance in the dependent variables is explained by the independent variables. We did three different tests, where the dependent variables were work-family conflict, stress and job satisfaction.

The first result indicates that there is a significant relationship between the stress and the accept and overload. The analysis showed that there is a significant negative relationship between stress and overload, which means that when stress increases, overload will decrease. Here we need to have in mind that stress questions are asked in a negative way, while overload questions are re-coded into positive questions. This means that when stress

increases, overload gains a higher influence on stress level. There is also a significant relationship between stress and acceptance. Again, stress is a negatively loaded question, so the actual meaning is that the higher stress is, the lower influence acceptance has on the variable. First these findings seemed very confusing, but since the dependent and independent variable questions are not asked in the same matter (positive/negative), we need to switch them to understand the outcome of the regression analysis.

Looking at job satisfaction, there is a significant positive relationship towards acceptance. This means that when job satisfaction increases, the same is for acceptance.

Regarding our research question, we can say that technology acceptance has an influential relation to stress and job satisfaction, and technology overload has an influential relation to stress.

6.2. RQ2 "Does perceived work-family conflict and work stress influence job satisfaction level?"

From our analysis we can see that there is a significant negative relationship between job satisfaction and WFC. When job satisfaction increases the WFC will also increase by its beta value. The Beta value came out as negative, but we need to switch it since the question is asked in a negative way. A reason for this relationship can be that when people get higher job satisfaction they are more willing to work outside work hours, and this may cause them to experience a higher work-family conflict. We could not state that there was a significant relationship between work stress and job satisfaction.

6.3. RQ3 "Does demographic segmentation of the technology end-user play a role in experienced levels of the construct?"

In our analysis we could see that we kept the following hypothesis; H1 0, H2 0, H3 0, H4 0, H6 0, H7 0, H8 0 and H9 0. These null hypotheses indicate that there are no significant differences in the mean scores among the demographics. The only alternative hypothesis that could be accepted was H5 a, which says that there is a significant difference within the age groups regarding effort expectancy.

The results of keeping H1 0 indicates that here is no significant difference in experienced WFC and gender. This result is very interesting, especially since previous studies have found that women tend to spend more time on household and care (Stier & Lewin-Epstein, 2007). It has also been stated that women experience a lack of institutional support regarding work-family conflict (O'Laughlin & Bichoff, 2005). We also kept H2 0, thus, there

is no significant difference in perceived work stress among men and women. Previous studies have stated that women experience more workload than men (Krantz & Lundberg, 2006), so this was also an unexpected result.

There was no significant difference in experienced system overload and age, and we therefore had to keep the H3 0. This result is differ from Benselin & Ragsdell (2015) that found that older people have more difficulties regarding technology than young people have.

The only alternative hypothesis that could be accepted, tells us that there is a significant difference in experienced facilitating conditions and age.

All of the null hypotheses regarding children were kept. This is very interesting, since one should have thought that people with children would experience a higher level of WFC compared to people who don't have children. Also we assumed that people with children would report a higher level of work stress due to more responsibilities on a general basis.

H9 0 were also kept, indicating that there are no significant differences in experienced work-family conflict and education. A previous study found that people with higher work positions will experience more work-family conflict (Schieman, Whitestone & Gundy, 2006).

We have tested for additional findings regarding segmentation and the construct, and found that there is a significant difference in facilitating conditions and family-status. There we could see that respondents with no children answered with a higher mean score than respondents with children (table x). This can be surprising with the assumption that employees with children might require more facilitating conditions tham employees without children.

We also conducted a one-way ANOVA to examine for other additional findings. The ANOVA test told us that there was a significant difference in experienced performance expectancy, social influence and COVID-19 relative to education level. The findings are listed up in Table x, and there we can see that regarding performance expectancy it was respondents with bachelor and master that had the highest mean scores. The respondent with the highest mean score in social influence had no education. This can be explained by that there may be reason to believe that people who don't have an education have a lower self-esteem when it comes to technology usage, and rely more on the social influence when it comes to acceptance of technology. Further we can see that regarding COCID-19 it was respondent with PhD that had the highest mean scores. We further found a significant difference in experienced social influence, facilitating conditions, information overload and communication overload up against age. The respondents with the highest mean scores in social influence was the youngest group, 18-29 years, but also. This may be explained in the

same way as we explained why people without education also reported this. In facilitating conditions it was also the younger respondents that made up the highest mean score 18-29 years, but also 40-49 years. This result may be explained by the fact that younger people have a better understanding using technology and that they are more open minded regard to the use of technology. It is interesting to see that the age group 40-49 years also reported a high mean score, especially since it "skipped" an age group. Regarding information overload, it was the age groups 30-39 and 40-49 years that reported the highest mean scores. Also on communication overload it was one of the older age groups, 40-49 years, that had the highest mean score. Based on the findings in information overload and communication overload we can assume that older people may be more restricted in regard to receiving and answering work-related requests during off-hours.

We would also like to mention that there were run one way anova analysis on all subjects against relationship status, but there were no significant values. In addition independent t-test were run on all subjects and work status, no significant difference was found.

If we only consider our null hypothesis and the one accepted alternative hypothesis (H5 a), there wouldn't be much significant difference. But based on our additional findings, we can say that there are significant differences based on demographic segmentation.

6.4 RQ (4): How has the ongoing pandemic COVID-19 influenced technology usage in the workplace?

In order to see if COVID-19 have had an impact on the technology use, we tested COVID-19 up against stress, and found a significant positive relationship. This indicates that the pandemic has influenced employees' technology stress level. A lot of people have been having home-office the last months, and this can be a major reason for why stress and COVID-19 have a relationship. Further we examined COVID-19 in a partial correlation analysis to see if it had an impact on the variable stress and WFCs relationship. The finding shows that the observed relationship between stress and WFC was not singely influenced by the ongoing pandemic, as the result did not have a huge variance (.491 vs. .483). Based on the previous assumption that a lot of employees have been having home-office the last months, it is surprising to see that there are no significant relationships between the pandemic and perceived work-family conflict. Secondly we wanted to look if the relationship between stress and overload was explained by COVID-19, our finding showed that it only explains it "somewhat". Since these partial correlation analysis did not give us a strong explanation, we

looked into the frequency of the answers to the question on C19. Here we found that the majority of respondents agrees on the statement "*Innovative technology solutions have helped me do my job during the pandemic*". On the question "Due to the pandemic, I'm forced to use technology more frequently", we could see that over 60% had answers in the range of "*agree somewhat*" to "*strongly agree*". Lastly an interesting finding is that 17.8% respondents disagreed on extensive use of emerging technology as a consequence of COVID-19 at their workplace. This might be because our respondent sample was not conducted in just one work-place industry or at a specific business. So to answer RQ4, COVID-19 has influenced technology usage in some work-context. It has increased technology stress and we see that respondents answer mostly on the higher end of the likert-scale on questions measuring changes due to COVID-19.

7.0 Conclusion

For this chapter we will go through the main findings, and list up limitations regarding our research. We will also briefly suggest future research.

7.1. Brief review of the results

In order to answer our research questions, the result of this research can be listed as followed; RQ1) Technology acceptance has an influential relation to work stress and job satisfaction, whereas technology overload has an influential relation to stress, RQ2) There is a relationship between work-family conflict and job satisfaction, RQ3) There are several demographic segmentations that influence the levels of the constructs, and RQ4) COVID-19 has influenced how people perceive work stress.

7.1 Limitations/Implications

Due to the use of the haphazard sampling method, our sample does not represent the population. Thus the finding can not be generalised for the whole population (Neuman, 2006, p. 220). Initially there were 302 respondents to the questionnaire, but only 168 respondents completed the whole questionnaire. The amount of people choosing not to complete the questionnaire indicates that the questionnaire may have been poorly developed. The questionnaire was conducted on english, and we think this is one of the major reasons why people chose not to complete the whole questionnaire. The language can also have led to misunderstanding during answering the questionnaire, and if we had known it was allowed to have it on norwergian, we would have done that. Also, due to time, we were not able to

implement a pre-test of the questionnaire. In the questionnaire we did not include any question about what type of technology the respondents used during their work-day or what type of technology device that is being most used. This made it complicated to say something about what segment of businesses that would have benefitted from this research. We only looked at the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test output from SPSS. We briefly looked into the PCA analysis, but did not conduct it any further as our mission was not to reduce our data set. The reason we did not conduct a thorough factor analysis is due to high trust in the researchers we obtained the questions from. Subsequently, we see that we should have developed a more comprehensive factor analysis, as every research is unique and complex, to test if the questions measured underneath the factors as we envisioned. This is specially based on the fact that we used questions from several different researchers to measure the same factor. The consequence of this is that our measurements may not have been as valid as we predicted in the beginning. A limitation we have seen has been difficult to operate around is how we have asked the question in the questionnaire. When all the questions are not asked in the same manner (positive/negative), it is hard to analyse in SPSS, and the output needs to be handled carefully in interpretation.

For further study it would be interesting to look at the conceptual framework applied to one specific industry or business. Research could also benefit from a more comprehensive measurement of what kind of actual technological devices that are being used. By determining the actual devices, it would also be interesting to see if the different devices have different impacts on work-family conflict, work stress and job-satisfaction.

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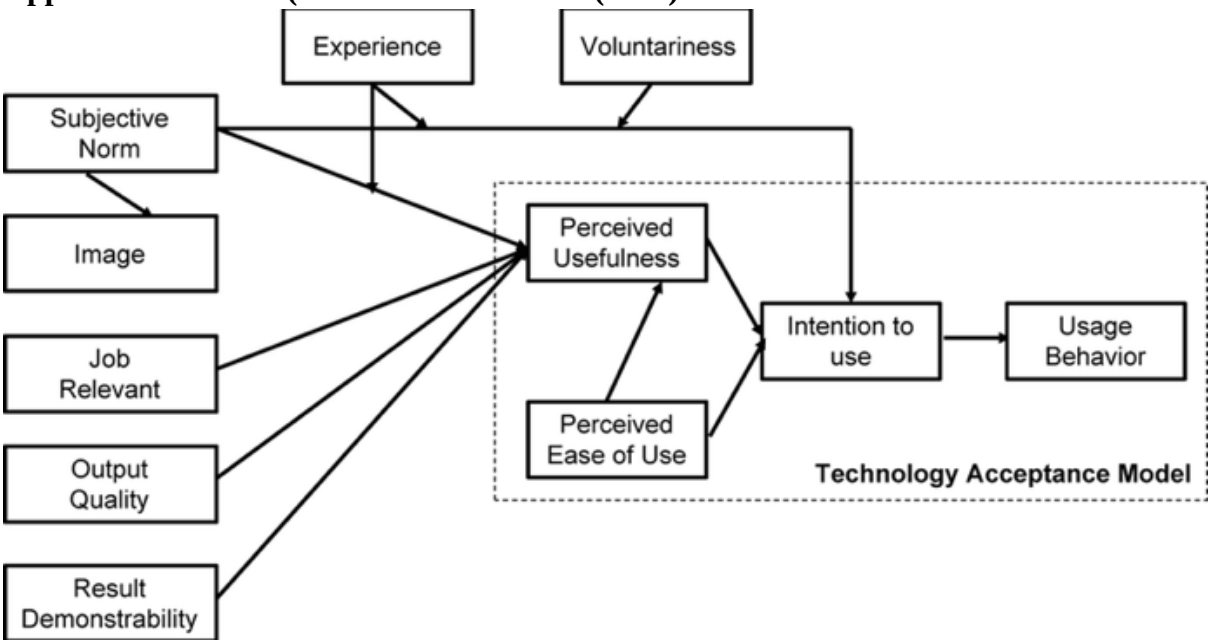
APPENDIX

Appendix 1: TAM 2 (Venkatesh and Davis (2000).



Appendix 2: Questionare, original from SurveyxAct

Hi, and thank you for wanting to participate in our research project for our master thesis in International Hospitality Management. First we would like to give you some information about the project and what your participation will involve:

The purpose of the research is to gain insight in technology usage at the workplace and how this can influence different variables, such as; accept, stress, overload, job satisfaction etc.

When you answer the questions we would kindly ask you to think about the technology features that you use in your daily work, and answer the questions in consideration to them.

A participation in this survey is relevant for those who use information and communication technologies (e.g. mail, apps, Skype, zoom, etc.) and other daily used operative software systems (e.g. firm software, apps, intranett, booking systems, operative systems, etc.).

The questionnaire is **anonymous** and takes about **5-10 minutes** to complete. The participation is voluntary and you can choose to withdraw your consent at any time without giving a reason. All the data collected in this survey will be deleted after the project is finalized.

We would like to thank you so much up front for taking your valuable time to help us gain insight on this field.

If you have any questions upon your participation, please feel free to contact us for further information:

Julie Kvist Stadheim (jk.stadheim@stud.uis.no)

Mariell Sivertsen (mari.sivertsen@stud.uis.no)

By ticking yes you agree to have read the statement above and to participate in the survey

(1) ❑ Yes
(2) ❑ No

Demographics

Gender

(1) ❑ Female
(2) ❑ Male
(3) ❑ Other

Age

(1) ❑ 18-29
(2) ❑ 30-39
(3) ❑ 40-49
(4) ❑ 50-59
(5) ❑ 60+

Education level (tick of the latest started education)

(1) ❑ No education
(2) ❑ High School
(3) ❑ Certificate of Apprenticenship
(4) ❑ University Bachelor degree
(5) ❑ University Master degree
(6) ❑ University PhD. degree
(7) ❑ Other

Relationship status

(1) ❑ Single
(2) ❑ In a relationship
(3) ❑ Engaged
(4) ❑ Married
(5) ❑ Other

Do you have kids?

(1) ❑ Yes
(2) ❑ No

Which of the following describes your work situation best?

(1) ❑ Full-time worker
(2) ❑ Part-time worker

Technology in the workplace

Technology makes me work more efficient

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

I find it hard to keep up with all the new technological features

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

Technology Acceptance

I am willing to use work related technology

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

Performance Expectancy (PE)

I am more likely to use a technology system if I think it will be easy to use

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

Using the technology system makes it easier to do my job

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

Using the technology system improves my job performance

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

Use of the technology system increases the effectiveness of performing job tasks

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

Use increases the quantity of output for the same amount of effort

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

Effort Expectancy (EE)

I am more likely to use a technology system if it is very useful, even though it takes some time to learn it

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

Learning to operate the technology system is easy for me

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

I believe that it is easy to get the technology system to do what I want it to do

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

Using the technology system enables me to accomplish tasks more quickly

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

Using the technology system takes too much time from my normal duties

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

Social Influence (SI)

People who are important to me think that I should use the technology system

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

People who influence my behavior think that I should use the technology system

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

I use the technology system because of the proportion of coworkers who use the system

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

Using the technology system, my coworkers will perceive me as competent

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

My supervisor is very supportive of the use of the technology system for my job

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

In general, the organization has supported the use of the technology system

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

My supervisor has been helpful in the use of the technology system

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

Facilitating Conditions (FC)

I have the resources necessary to use the technology system

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

I have the knowledge necessary to use the technology system

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

Given the recourses, opportunities and knowledge it takes to use the technology system, it would be easy for me to use it.

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

Specialized instructions concerning the technology system was available to me

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

Guidance was available to me in the introduction of the technology system

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

A specific person (or group) is available for assistance with the technology system difficulties

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

Using the technology system is frustrating for me

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

Information Overload (IO)

I often receive more information than I can efficiently use

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

In general, the information I receive is relevant to me

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

I am often distracted by the excessive amount of information I receive

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

I feel some problems with too much information, instead of not having enough information

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

The total amount of information I receive in a typical work week is enough to meet the information requirements for my job

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

Communication Overload (CO)

I often feel overloaded with communication from technology devices

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

I receive more communication messages and news than I can handle

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

I feel I have to send more messages to colleagues than I want to send

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

System Overload (SO)

The technology system makes me able to do my job

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

I am often distracted by technology system features that are not necessary

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

The functions of the technology system are easy to use

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

I am often less productive in my workday because the technology system is difficult to use

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

I find that most of the technology system features handle too many tasks poorly, instead of few tasks very well

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

Work Stress

Technology force me to work much faster

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

Technology force me to work with very tight time schedule

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

Technology force me to do more work than I can handle

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

I have a higher workload because of increased technology complexity

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

I am forced to change my work habits to adapt to new technologies

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

My personal technological skills have an impact on my stress level at work

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

Work Family Conflict (WFC)

The time I must devote to my job keeps me from participating equally in household responsibilities and activities

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

My work keeps me from family activities more than I would like

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

When I get home from work, I am often too exhausted to participate in family activities/responsibilities

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

I am often emotionally drained when I get home from work that it prevents me from contributing to my family

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

Due to all the pressure at work, sometimes when I get home I am too stressed to do the things I enjoy

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

I often think about work when I am home, as a result of technology increase

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

Job Satisfaction

My work gives me a sense of accomplishment

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

My work is satisfying

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

My job is exciting

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

I would advice a friend looking for a new job to take one similar to mine

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

I just hate to get up in the morning to go to work

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

COVID-19

Due to the pandemic I am forced to use technology more frequently

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

As a consequence of COVID-19 my workplace have had extensive use of emerging technologies

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

Innovative technology solutions have helped me do my job during the pandemic

1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑	(6) ❑	(7) ❑

Thank you so much!

Appendix 3: Check for errors demographics

Statistics

		Gender	Age	"Education level (tick of the latest started education)"	Relationship status	"Do you have kids?"	"By ticking yes you agree to have read the statement above and to participate in the survet"
N	Valid	168	168	168	168	168	168
	Missing	0	0	0	0	0	0
Minimum		1	1	1	1	1	1
Maximum		2	5	7	4	2	1

Appendix 4: Cronbach's Alpha

Cronbach's Alpha original

Performance Expectancy

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,831	,832	5

Effort expectancy

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,326	,466	5

Social Influence

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,782	,785	7

Facilitating Conditions

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,630	,683	7

Information overload

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,317	,270	5

Communication Overload

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,812	,812	3

System Feature Overload

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items [a]	N of Items
,046	-,211	5

a. The value is negative due to a negative average covariance among items. This violates reliability model assumptions. You may want to check item codings.

Work Stress

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,781	,784	6

Work Family Conflict

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,900	,900	6

Job satisfaction

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,406	,578	5

Covid-19

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,868	,869	3

Cronbach's Alpha reversed

Effort Expectancy

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,703	,725	5

Facilitating Conditions

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,793	,808	7

Information Overload:

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,620	,610	5

Communication Overload:

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,812	,812	3

System Feature Overload:

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,740	,740	5

Job Satisfaction

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,802	,832	5

Appendix 5: Factor Analysis KMO & Bartlett´s SPSS output

Performance expectancy:

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,840
Bartlett's Test of Sphericity	Approx. Chi-Square	433,584
	df	10
	Sig.	,000

Effort expectancy

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,750
Bartlett's Test of Sphericity	Approx. Chi-Square	164,645
	df	10
	Sig.	,000

Social influence

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,747
Bartlett's Test of Sphericity	Approx. Chi-Square	345,132
	df	21
	Sig.	,000

Facilitating conditions

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,788
Bartlett's Test of Sphericity	Approx. Chi-Square	430,964
	df	21
	Sig.	,000

Information overload

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,623
Bartlett's Test of Sphericity	Approx. Chi-Square	120,713
	df	10
	Sig.	,000

Communication Overload

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,699
Bartlett's Test of Sphericity	Approx. Chi-Square	174,044
	df	3
	Sig.	,000

System feature overload

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,767
Bartlett's Test of Sphericity	Approx. Chi-Square	181,114
	df	10
	Sig.	,000

Work stress

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,702
Bartlett's Test of Sphericity	Approx. Chi-Square	293,908
	df	15
	Sig.	,000

Work family Conflict

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,850
Bartlett's Test of Sphericity	Approx. Chi-Square	682,722
	df	15
	Sig.	,000

Job satisfaction

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,802
Bartlett's Test of Sphericity	Approx. Chi-Square	357,049
	df	10
	Sig.	,000

Covid-19

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,722
Bartlett's Test of Sphericity	Approx. Chi-Square	251,012
	df	3
	Sig.	,000

Appendix 6: Descriptive Statistics analyses from SPSS on questions.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
"Technology makes me work more efficient"	168	1	7	5,83	1,257	-1,809	,187	4,258	,373
"I find it hard to keep up with all the new technology features"	168	1	7	3,30	1,554	,372	,187	-1,105	,373
"I am willing to use work related technology"	168	1	7	6,32	,805	-2,307	,187	11,082	,373
"I am more likely to use a technology system if I think it will be easy to use"	168	1	7	5,99	1,302	-1,753	,187	3,101	,373
"Using the technology system makes it easier to do my job"	168	1	7	5,83	1,260	-1,624	,187	3,260	,373
"Using the technology system improves my job performance"	168	1	7	5,42	1,311	-1,230	,187	1,804	,373
"Use of the technology system increases the effectiveness of performing job tasks"	168	1	7	5,52	1,299	-1,366	,187	1,957	,373
"Use increases the quantity of output for the same amount of effort"	168	1	7	5,08	1,226	-,575	,187	,643	,373
"I am more likely to use a technology system if it is very useful, even though it takes some time to learn it"	168	1	7	5,96	1,088	-2,101	,187	6,188	,373
"Learning to operate the technology system is easy for me"	168	1	7	5,31	1,153	-1,128	,187	1,902	,373
"I believe that it is easy to get the technology	168	1	7	4,79	1,169	-,620	,187	,163	,373

"People who influence my behaviour think that I should use the technology system"	168	1	7	4,67	1,351	-,490	,187	,242	,373
"I use the technology system because of the proportion of coworkers who use the system"	168	1	7	4,85	1,508	-,623	,187	-,217	,373
"Using the technology system, my coworkers will perceive me as competent"	168	1	7	5,24	1,239	-,903	,187	,935	,373
"My supervisor is very supportive of the use of the technology system for my job"	168	1	7	5,59	1,287	-1,036	,187	1,065	,373
"In general, the organization has supported the use of the technology system"	168	1	7	5,77	1,153	-1,576	,187	3,625	,373
"My supervisor has been helpful in the use of the technology system"	168	1	7	4,93	1,461	-,830	,187	,327	,373
"I have the resources necessary to use the technology system"	168	1	7	5,71	1,102	-1,493	,187	3,231	,373
"I have the knowledge necessary to use the technology system"	168	1	7	5,50	1,137	-1,224	,187	2,071	,373
"Given the recourses, opportunities and knowledge it takes to use the technology system, it would be easy for me to use it"	168	1	7	5,68	,962	-1,519	,187	4,613	,373
"Specialized instructions concerning the technology system was available to me"	168	1	7	5,00	1,322	-,723	,187	,218	,373

information I recieve is relevant to me"									
"I am often distracted by the excessive amount of information i receive"	168	1	7	3,79	1,432	,260	,187	-,639	,373
"I feel some problems with too much information, instead of not having enough information"	168	1	7	3,76	1,441	,375	,187	-,442	,373
"The total amount of information I receive in a typical work week is enough to meet the information requirements for my job"	168	1	7	5,35	1,106	-1,028	,187	1,217	,373
"I often feel overloaded with communication from technology devices"	168	1	7	4,23	1,559	-,182	,187	-,856	,373
"I receive more communication messages and news than I can handle"	168	1	7	3,83	1,623	,019	,187	-1,120	,373
"I feel I have to send more messages to colleagues than I want to send"	168	1	7	3,49	1,608	,393	,187	-,971	,373
"The technology system makes me able to do my job"	168	1	7	5,65	1,056	-1,540	,187	4,159	,373
"I am often distracted by technology system features that are not necessary"	168	1	7	4,10	1,587	-,040	,187	-1,068	,373
"The functions of the technology system are easy to use"	168	1	7	5,16	1,080	-,903	,187	1,008	,373
"I am often less productive in my workday because the technology	168	1	7	4,75	1,558	-,354	,187	-1,027	,373

new technologies"									
"My personal technological skills have an impact on my stress level at work"	168	1	7	4,05	1,684	-,083	,187	-,952	,373
"The time I must devote to my job keeps me from participating equally in household responsibilities and activities"	168	1	7	3,44	1,807	,325	,187	-1,063	,373
"My work keeps me from family activities more than I would like"	168	1	7	3,61	1,818	,146	,187	-1,274	,373
"When I get home from work, I am often too exhaused to participate in family activities/responsibilities"	168	1	7	3,49	1,758	,278	,187	-1,037	,373
"I am often emotionally drained when I get home from work that it prevents me from contributing to my family"	168	1	7	3,42	1,773	,387	,187	-1,020	,373
"Due to all the pressure at wokr, sometimes when I get home I am too stressed to do the things I enjoy"	168	1	7	3,76	1,786	,138	,187	-1,118	,373
"I often think about work when I am home, as a result of technology increase"	168	1	7	3,66	1,804	,098	,187	-1,198	,373
"My work gives me a sense of accomplishment"	168	2	7	5,70	1,120	-1,317	,187	2,106	,373
"My work is satisfying"	168	1	7	5,70	1,086	-1,397	,187	3,174	,373
"My job is exciting"	168	2	7	5,57	1,167	-,881	,187	,813	,373
"I would advice a friend	168	1	7	4,97	1,490	-,828	,187	,303	,373

Appendix 7: SPSS output for multiple regression analysis

Findings regression analysis WFC:

Descriptive Statistics

	Mean	Std. Deviation	N
TotalWFC	21,37	8,772	168
TotalWS	23,05	6,446	168
OVERLOAD	57,49	10,901	168
ACCEPT	127,31	16,125	168
TotalJS	27,01	5,035	168

Correlations

		TotalWFC	TotalWS	OVERLOAD	ACCEPT	TotalJS
Pearson Correlation	TotalWFC	1,000	,491	-,348	-,009	-,193
	TotalWS	,491	1,000	-,541	,014	-,106
	OVERLOAD	-,348	-,541	1,000	,425	,099
	ACCEPT	-,009	,014	,425	1,000	,165
	TotalJS	-,193	-,106	,099	,165	1,000
Sig. (1-tailed)	TotalWFC	.	,000	,000	,453	,006
	TotalWS	,000	.	,000	,431	,085
	OVERLOAD	,000	,000	.	,000	,100
	ACCEPT	,453	,431	,000	.	,016
	TotalJS	,006	,085	,100	,016	.
N	TotalWFC	168	168	168	168	168
	TotalWS	168	168	168	168	168
	OVERLOAD	168	168	168	168	168
	ACCEPT	168	168	168	168	168
	TotalJS	168	168	168	168	168

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,523[a]	,274	,256	7,567

a. Predictors: (Constant), TotalJS, OVERLOAD, ACCEPT, TotalWS

b. Dependent Variable: TotalWFC

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3516,959	4	879,240	15,357	,000[b]
	Residual	9332,160	163	57,253		
	Total	12849,119	167			

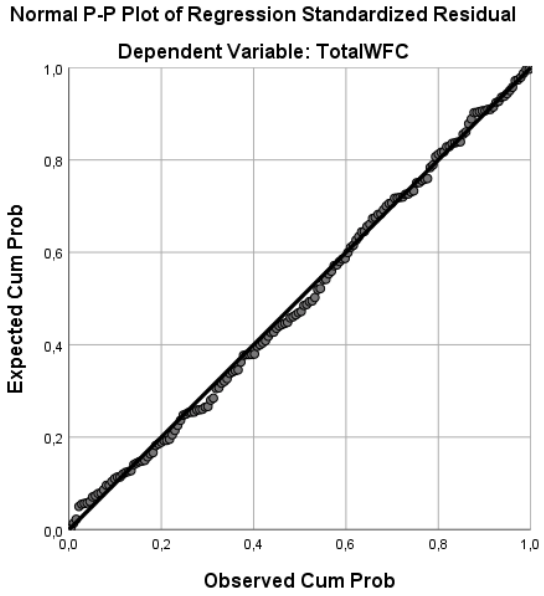
a. Dependent Variable: TotalWFC

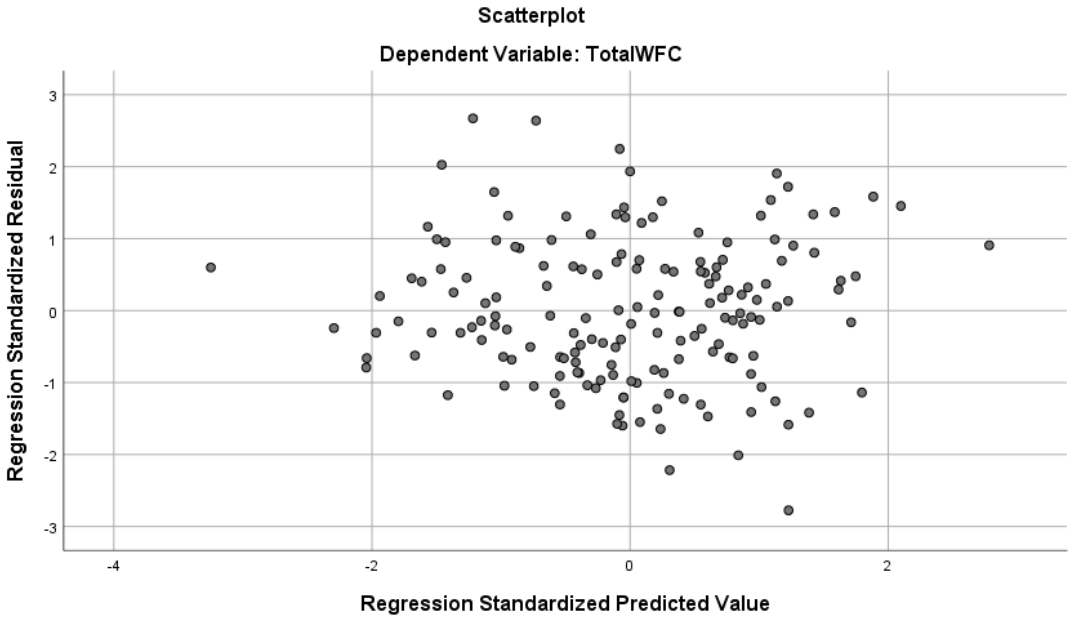
b. Predictors: (Constant), TotalJS, OVERLOAD, ACCEPT, TotalWS

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95,0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	17,956	6,571		2,733	,007	4,980	30,932					
	TotalWS	,533	,115	,391	4,642	,000	,306	,759	,491	,342	,310	,627	1,595
	OVERLOAD	-,124	,075	-,154	-1,660	,099	-,271	,023	-,348	-,129	-,111	,519	1,926
	ACCEPT	,041	,043	,075	,955	,341	-,044	,126	-,009	,075	,064	,715	1,398
	TotalJS	-,258	,119	-,148	-2,173	,031	-,493	-,024	-,193	-,168	-,145	,959	1,043

a. Dependent Variable: TotalWFC





Findings regression analysis WFC – without a computed variable for overload and acceptance

Descriptive Statistics

	Mean	Std. Deviation	N
TotalWFC	21,37	8,772	168
TotalPE	27,85	4,945	168
TotalEE	26,30	4,303	168
TotalSI	35,83	6,140	168
TotalFC	37,33	5,874	168
TotalIO	21,35	4,167	168
TotalSO	23,68	4,740	168
NEWTotalCO	12,45	4,084	168

Correlations

		TotalWFC	TotalPE	TotalEE	TotalSI	TotalFC	TotalIO	TotalSO	NEWTotalCO
Pearson Correlation	TotalWFC	1,000	,025	-,177	,188	-,112	-,217	-,292	-,369
	TotalPE	,025	1,000	,537	,507	,355	-,004	,377	,090
	TotalEE	-,177	,537	1,000	,261	,567	,322	,598	,337
	TotalSI	,188	,507	,261	1,000	,390	,034	,175	-,053
	TotalFC	-,112	,355	,567	,390	1,000	,431	,592	,357
	TotalIO	-,217	-,004	,322	,034	,431	1,000	,539	,624
	TotalSO	-,292	,377	,598	,175	,592	,539	1,000	,511
	NEWTotalCO	-,369	,090	,337	-,053	,357	,624	,511	1,000
Sig. (1-tailed)	TotalWFC	.	,375	,011	,007	,074	,002	,000	,000
	TotalPE	,375	.	,000	,000	,000	,479	,000	,122
	TotalEE	,011	,000	.	,000	,000	,000	,000	,000
	TotalSI	,007	,000	,000	.	,000	,329	,012	,247
	TotalFC	,074	,000	,000	,000	.	,000	,000	,000
	TotalIO	,002	,479	,000	,329	,000	.	,000	,000
	TotalSO	,000	,000	,000	,012	,000	,000	.	,000
	NEWTotalCO	,000	,122	,000	,247	,000	,000	,000	.
N	TotalWFC	168	168	168	168	168	168	168	168
	TotalPE	168	168	168	168	168	168	168	168
	TotalEE	168	168	168	168	168	168	168	168
	TotalSI	168	168	168	168	168	168	168	168
	TotalFC	168	168	168	168	168	168	168	168
	TotalIO	168	168	168	168	168	168	168	168
	TotalSO	168	168	168	168	168	168	168	168
	NEWTotalCO	168	168	168	168	168	168	168	168

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,447[a]	,200	,165	8,016

a. Predictors: (Constant), NEWTotalCO, TotalSI, TotalEE, TotalIO, TotalPE, TotalFC, TotalSO

b. Dependent Variable: TotalWFC

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2566,863	7	366,695	5,706	,000[b]
	Residual	10282,256	160	64,264		
	Total	12849,119	167			

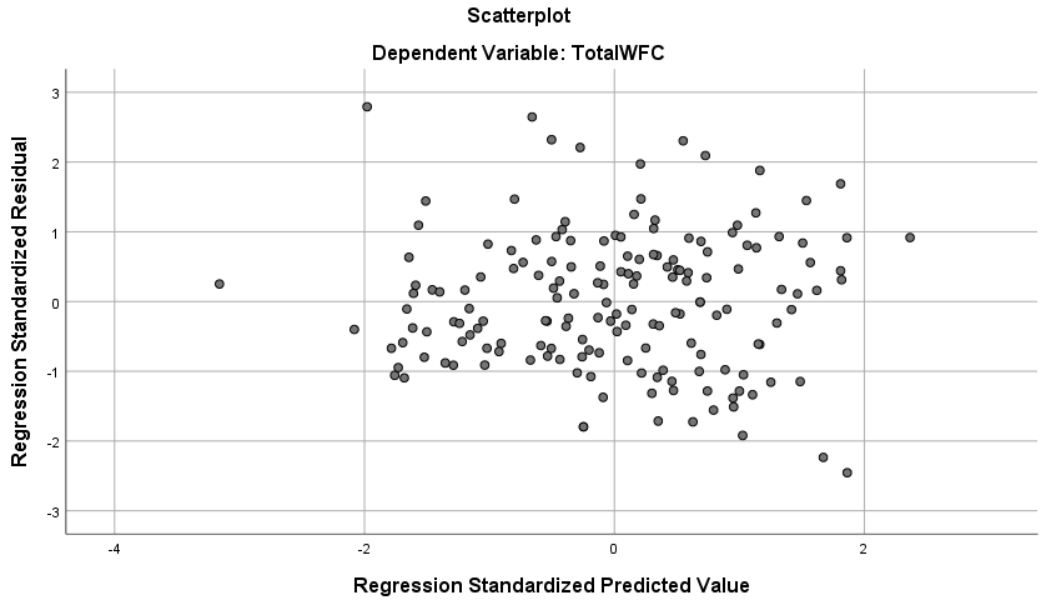
a. Dependent Variable: TotalWFC

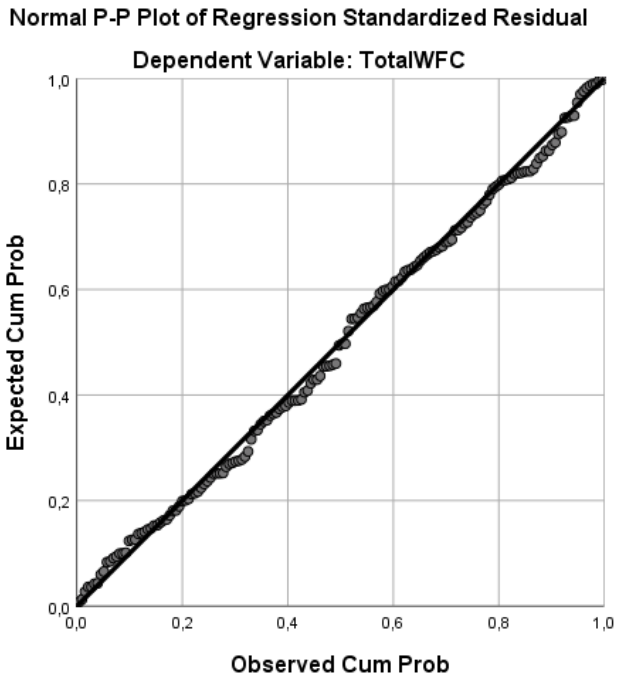
b. Predictors: (Constant), NEWTotalCO, TotalSI, TotalEE, TotalIO, TotalPE, TotalFC, TotalSO

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95,0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	24,408	5,392		4,527	,000	13,760	35,057					
	TotalPE	,140	,175	,079	,800	,425	-,206	,486	,025	,063	,057	,512	1,952
	TotalEE	-,167	,209	-,082	-,799	,425	-,579	,245	-,177	-,063	-,057	,477	2,096
	TotalSI	,251	,126	,176	1,983	,049	,001	,500	,188	,155	,140	,638	1,566
	TotalFC	,053	,150	,036	,356	,722	-,243	,350	-,112	,028	,025	,494	2,025
	TotalIO	,198	,212	,094	,934	,352	-,221	,618	-,217	,074	,066	,491	2,038
	TotalSO	-,416	,199	-,225	-2,090	,038	-,810	-,023	-,292	-,163	-,148	,431	2,319
	NEWTotalCO	-,635	,205	-,296	-3,095	,002	-1,040	-,230	-,369	-,238	-,219	,548	1,824

a. Dependent Variable: TotalWFC





Findings regression analysis Stress

Descriptive Statistics

	Mean	Std. Deviation	N
TotalWS	23,05	6,446	168
TotalWFC	21,37	8,772	168
OVERLOAD	57,49	10,901	168
ACCEPT	127,31	16,125	168
TotalJS	27,01	5,035	168
TotalC19	13,87	4,862	168

Correlations

		TotalWS	TotalWFC	OVERLOAD	ACCEPT	TotalJS	TotalC19
Pearson Correlation	TotalWS	1,000	,491	-,541	,014	-,106	,351
	TotalWFC	,491	1,000	-,348	-,009	-,193	,120
	OVERLOAD	-,541	-,348	1,000	,425	,099	-,159
	ACCEPT	,014	-,009	,425	1,000	,165	,151
	TotalJS	-,106	-,193	,099	,165	1,000	,245
	TotalC19	,351	,120	-,159	,151	,245	1,000
Sig. (1-tailed)	TotalWS	.	,000	,000	,431	,085	,000
	TotalWFC	,000	.	,000	,453	,006	,061
	OVERLOAD	,000	,000	.	,000	,100	,020
	ACCEPT	,431	,453	,000	.	,016	,025
	TotalJS	,085	,006	,100	,016	.	,001
	TotalC19	,000	,061	,020	,025	,001	.
N	TotalWS	168	168	168	168	168	168
	TotalWFC	168	168	168	168	168	168
	OVERLOAD	168	168	168	168	168	168
	ACCEPT	168	168	168	168	168	168
	TotalJS	168	168	168	168	168	168
	TotalC19	168	168	168	168	168	168

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,702[a]	,493	,478	4,660

a. Predictors: (Constant), TotalC19, TotalWFC, ACCEPT, TotalJS, OVERLOAD

b. Dependent Variable: TotalWS

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3422,346	5	684,469	31,526	,000[b]
	Residual	3517,273	162	21,712		
	Total	6939,619	167			

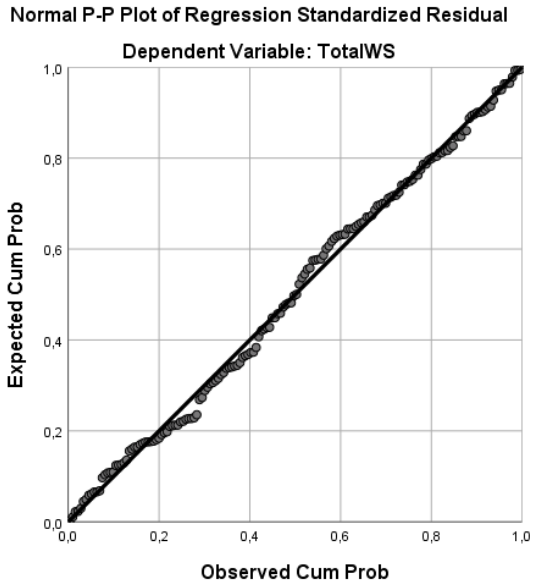
a. Dependent Variable: TotalWS

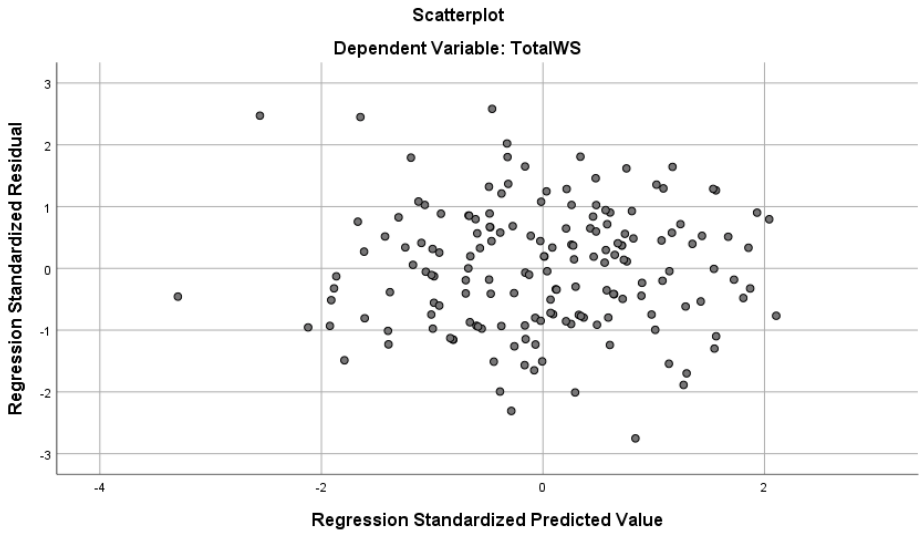
b. Predictors: (Constant), TotalC19, TotalWFC, ACCEPT, TotalJS, OVERLOAD

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95,0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	23,826	3,697		6,445	,000	16,526	31,126					
	TotalWFC	,205	,045	,279	4,502	,000	,115	,295	,491	,333	,252	,817	1,224
	OVERLOAD	-,286	,041	-,483	-7,052	,000	-,366	-,206	-,541	-,485	-,394	,666	1,501
	ACCEPT	,081	,026	,202	3,113	,002	,030	,132	,014	,238	,174	,743	1,345
	TotalJS	-,122	,077	-,095	-1,595	,113	-,273	,029	-,106	-,124	-,089	,875	1,143
	TotalC19	,310	,080	,234	3,865	,000	,151	,468	,351	,291	,216	,857	1,167

a. Dependent Variable: TotalWS





Findings regression analysis stress without a computed variable for accept and overload

Descriptive Statistics

	Mean	Std. Deviation	N
TotalWS	23,05	6,446	168
TotalPE	27,85	4,945	168
TotalEE	26,30	4,303	168
TotalSI	35,83	6,140	168
TotalFC	37,33	5,874	168
TotalIO	21,35	4,167	168
TotalSO	23,68	4,740	168
NEWTotalCO	12,45	4,084	168

Correlations

		TotalWS	TotalPE	TotalEE	TotalSI	TotalFC	TotalIO	TotalSO	NEWTotalCO
Pearson Correlation	TotalWS	1,000	,119	-,201	,281	-,209	-,469	-,403	-,498
	TotalPE	,119	1,000	,537	,507	,355	-,004	,377	,090
	TotalEE	-,201	,537	1,000	,261	,567	,322	,598	,337
	TotalSI	,281	,507	,261	1,000	,390	,034	,175	-,053
	TotalFC	-,209	,355	,567	,390	1,000	,431	,592	,357
	TotalIO	-,469	-,004	,322	,034	,431	1,000	,539	,624
	TotalSO	-,403	,377	,598	,175	,592	,539	1,000	,511
	NEWTotalCO	-,498	,090	,337	-,053	,357	,624	,511	1,000
Sig. (1-tailed)	TotalWS	.	,062	,004	,000	,003	,000	,000	,000
	TotalPE	,062	.	,000	,000	,000	,479	,000	,122
	TotalEE	,004	,000	.	,000	,000	,000	,000	,000
	TotalSI	,000	,000	,000	.	,000	,329	,012	,247
	TotalFC	,003	,000	,000	,000	.	,000	,000	,000
	TotalIO	,000	,479	,000	,329	,000	.	,000	,000
	TotalSO	,000	,000	,000	,012	,000	,000	.	,000
	NEWTotalCO	,000	,122	,000	,247	,000	,000	,000	.
N	TotalWS	168	168	168	168	168	168	168	168
	TotalPE	168	168	168	168	168	168	168	168
	TotalEE	168	168	168	168	168	168	168	168
	TotalSI	168	168	168	168	168	168	168	168
	TotalFC	168	168	168	168	168	168	168	168
	TotalIO	168	168	168	168	168	168	168	168
	TotalSO	168	168	168	168	168	168	168	168
	NEWTotalCO	168	168	168	168	168	168	168	168

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,636[a]	,404	,378	5,085

a. Predictors: (Constant), NEWTotalCO, TotalSI, TotalEE, TotalIO, TotalPE, TotalFC, TotalSO

b. Dependent Variable: TotalWS

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2803,226	7	400,461	15,490	,000[b]
	Residual	4136,393	160	25,852		
	Total	6939,619	167			

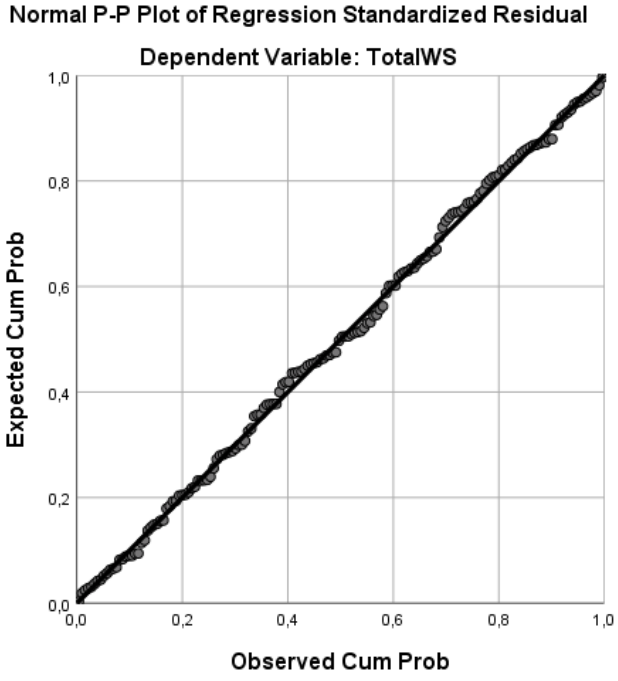
a. Dependent Variable: TotalWS

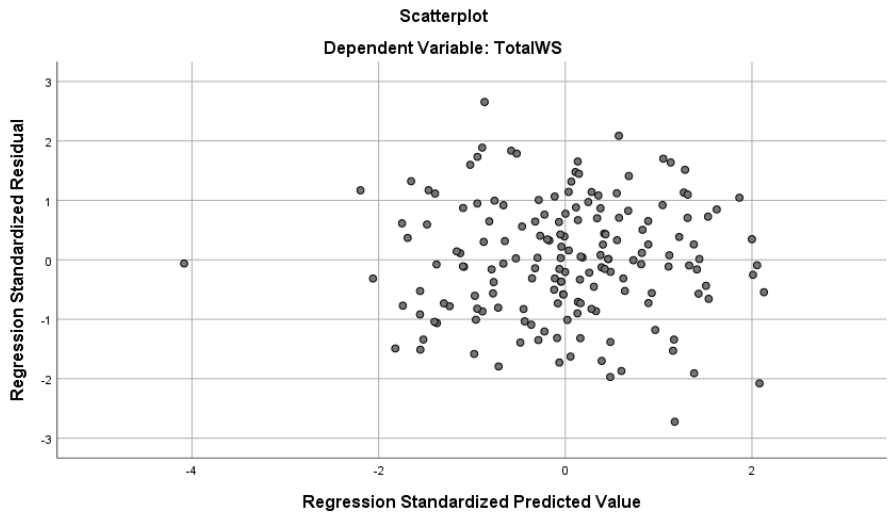
b. Predictors: (Constant), NEWTotalCO, TotalSI, TotalEE, TotalIO, TotalPE, TotalFC, TotalSO

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95,0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	29,273	3,420		8,560	,000	22,519	36,027					
	TotalPE	,161	,111	,124	1,449	,149	-,058	,381	,119	,114	,088	,512	1,952
	TotalEE	-,062	,132	-,041	-,468	,641	-,323	,200	-,201	-,037	-,029	,477	2,096
	TotalSI	,293	,080	,279	3,655	,000	,135	,452	,281	,278	,223	,638	1,566
	TotalFC	-,044	,095	-,040	-,460	,646	-,232	,144	-,209	-,036	-,028	,494	2,025
	TotalIO	-,267	,135	-,172	-1,978	,050	-,533	,000	-,469	-,155	-,121	,491	2,038
	TotalSO	-,320	,126	-,235	-2,531	,012	-,570	-,070	-,403	-,196	-,154	,431	2,319
	NEWTotalCO	-,376	,130	-,238	-2,888	,004	-,633	-,119	-,498	-,223	-,176	,548	1,824

a. Dependent Variable: TotalWS





Findings regression analysis job satisfaction

Descriptive Statistics

	Mean	Std. Deviation	N
TotalJS	27,01	5,035	168
TotalWS	23,05	6,446	168
TotalWFC	21,37	8,772	168
OVERLOAD	57,49	10,901	168
ACCEPT	127,31	16,125	168

Correlations

		TotalJS	TotalWS	TotalWFC	OVERLOAD	ACCEPT
Pearson Correlation	TotalJS	1,000	-,106	-,193	,099	,165
	TotalWS	-,106	1,000	,491	-,541	,014
	TotalWFC	-,193	,491	1,000	-,348	-,009
	OVERLOAD	,099	-,541	-,348	1,000	,425
	ACCEPT	,165	,014	-,009	,425	1,000
Sig. (1-tailed)	TotalJS	.	,085	,006	,100	,016
	TotalWS	,085	.	,000	,000	,431
	TotalWFC	,006	,000	.	,000	,453
	OVERLOAD	,100	,000	,000	.	,000
	ACCEPT	,016	,431	,453	,000	.
N	TotalJS	168	168	168	168	168
	TotalWS	168	168	168	168	168
	TotalWFC	168	168	168	168	168
	OVERLOAD	168	168	168	168	168
	ACCEPT	168	168	168	168	168

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,260[a]	,068	,045	4,921

a. Predictors: (Constant), ACCEPT, TotalWFC, TotalWS, OVERLOAD

b. Dependent Variable: TotalJS

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	287,288	4	71,822	2,966	,021[b]
	Residual	3946,688	163	24,213		
	Total	4233,976	167			

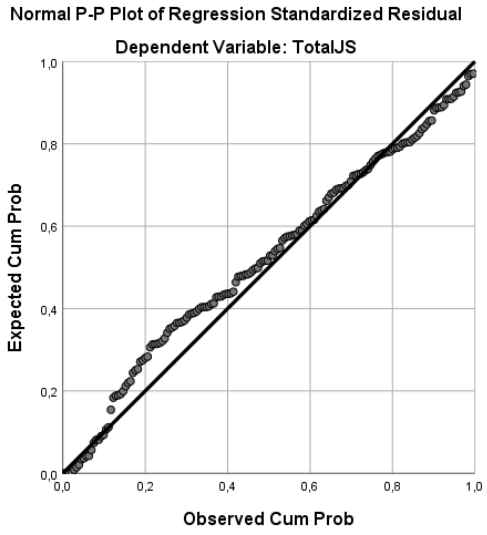
a. Dependent Variable: TotalJS

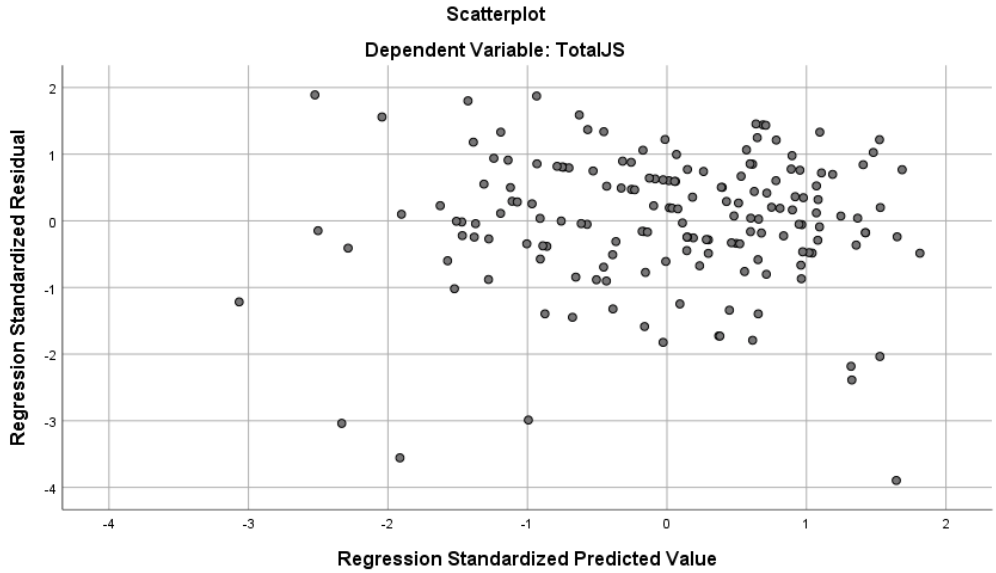
b. Predictors: (Constant), ACCEPT, TotalWFC, TotalWS, OVERLOAD

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95,0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	24,767	3,916		6,324	,000	17,034	32,500					
	TotalWS	-,049	,079	-,062	-,613	,541	-,205	,108	-,106	-,048	-,046	,555	1,802
	TotalWFC	-,109	,050	-,190	-2,173	,031	-,208	-,010	-,193	-,168	-,164	,747	1,338
	OVERLOAD	-,040	,049	-,086	-,814	,417	-,136	,057	,099	-,064	-,062	,513	1,950
	ACCEPT	,063	,028	,201	2,274	,024	,008	,117	,165	,175	,172	,734	1,363

a. Dependent Variable: TotalJS





Findings regression analysis job satisfaction without computed variable for acceptance and overload

Descriptive Statistics

	Mean	Std. Deviation	N
TotalJS	27,01	5,035	168
TotalPE	27,85	4,945	168
TotalEE	26,30	4,303	168
TotalSI	35,83	6,140	168
TotalFC	37,33	5,874	168
TotalIO	21,35	4,167	168
TotalSO	23,68	4,740	168
NEWTotalCO	12,45	4,084	168

Correlations

		TotalJS	TotalPE	TotalEE	TotalSI	TotalFC	TotalIO	TotalSO	NEWTotalCO
Pearson Correlation	TotalJS	1,000	,117	,050	,128	,184	,024	,167	,047
	TotalPE	,117	1,000	,537	,507	,355	-,004	,377	,090
	TotalEE	,050	,537	1,000	,261	,567	,322	,598	,337
	TotalSI	,128	,507	,261	1,000	,390	,034	,175	-,053
	TotalFC	,184	,355	,567	,390	1,000	,431	,592	,357
	TotalIO	,024	-,004	,322	,034	,431	1,000	,539	,624
	TotalSO	,167	,377	,598	,175	,592	,539	1,000	,511
	NEWTotalCO	,047	,090	,337	-,053	,357	,624	,511	1,000
Sig. (1-tailed)	TotalJS	.	,065	,262	,049	,008	,380	,015	,274
	TotalPE	,065	.	,000	,000	,000	,479	,000	,122
	TotalEE	,262	,000	.	,000	,000	,000	,000	,000
	TotalSI	,049	,000	,000	.	,000	,329	,012	,247
	TotalFC	,008	,000	,000	,000	.	,000	,000	,000
	TotalIO	,380	,479	,000	,329	,000	.	,000	,000
	TotalSO	,015	,000	,000	,012	,000	,000	.	,000
	NEWTotalCO	,274	,122	,000	,247	,000	,000	,000	.
N	TotalJS	168	168	168	168	168	168	168	168
	TotalPE	168	168	168	168	168	168	168	168
	TotalEE	168	168	168	168	168	168	168	168
	TotalSI	168	168	168	168	168	168	168	168
	TotalFC	168	168	168	168	168	168	168	168
	TotalIO	168	168	168	168	168	168	168	168
	TotalSO	168	168	168	168	168	168	168	168
	NEWTotalCO	168	168	168	168	168	168	168	168

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,257[a]	,066	,025	4,972

a. Predictors: (Constant), NEWTotalCO, TotalSI, TotalEE, TotalIO, TotalPE, TotalFC, TotalSO

b. Dependent Variable: TotalJS

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	278,570	7	39,796	1,610	,136[b]
	Residual	3955,406	160	24,721		
	Total	4233,976	167			

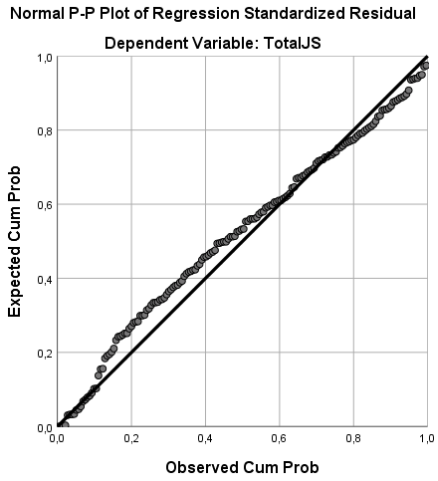
a. Dependent Variable: TotalJS

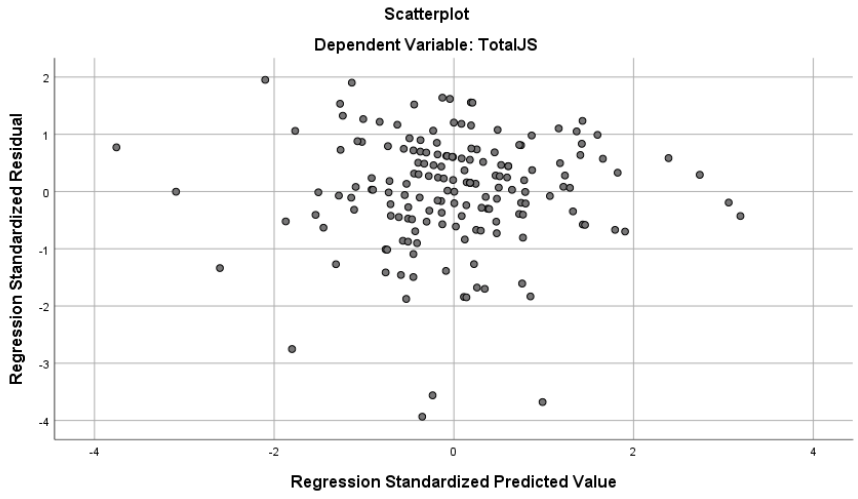
b. Predictors: (Constant), NEWTotalCO, TotalSI, TotalEE, TotalIO, TotalPE, TotalFC, TotalSO

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95,0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	21,652	3,344		6,475	,000	15,048	28,257					
	TotalPE	,049	,109	,048	,451	,652	-,166	,264	,117	,036	,034	,512	1,952
	TotalEE	-,201	,129	-,172	-1,555	,122	-,457	,054	,050	-,122	-,119	,477	2,096
	TotalSI	,042	,078	,051	,538	,591	-,113	,197	,128	,043	,041	,638	1,566
	TotalFC	,148	,093	,173	1,587	,114	-,036	,332	,184	,125	,121	,494	2,025
	TotalIO	-,129	,132	-,107	-,982	,328	-,390	,131	,024	-,077	-,075	,491	2,038
	TotalSO	,206	,124	,194	1,666	,098	-,038	,450	,167	,131	,127	,431	2,319
	NEWTotalCO	,011	,127	,009	,088	,930	-,240	,262	,047	,007	,007	,548	1,824

a. Dependent Variable: TotalJS





Appendix 8: Partial Correlation Analysis

PARTICAL CORRELATION COVID 19 – STRESS OG OVERLOAD

Correlations

Control Variables			TotalWS	TotalWFC	TotalC19
-none-[a]	TotalWS	Correlation	1,000	,491	,351
		Significance (2-tailed)	.	,000	,000
		df	0	166	166
	TotalWFC	Correlation	,491	1,000	,120
		Significance (2-tailed)	,000	.	,122
		df	166	0	166
	TotalC19	Correlation	,351	,120	1,000
		Significance (2-tailed)	,000	,122	.
		df	166	166	0
TotalC19	TotalWS	Correlation	1,000	,483	
		Significance (2-tailed)	.	,000	
		df	0	165	
	TotalWFC	Correlation	,483	1,000	
		Significance (2-tailed)	,000	.	
		df	165	0	

a. Cells contain zero-order (Pearson) correlations.

COVID 19 – STRESS AND OVERLOAD

Correlations

Control Variables			TotalWS	OVERLOAD	TotalC19
-none-[a]	TotalWS	Correlation	1,000	-,541	,351
		Significance (2-tailed)	.	,000	,000
		df	0	166	166
	OVERLOAD	Correlation	-,541	1,000	-,159
		Significance (2-tailed)	,000	.	,040
		df	166	0	166
	TotalC19	Correlation	,351	-,159	1,000
		Significance (2-tailed)	,000	,040	.
		df	166	166	0
TotalC19	TotalWS	Correlation	1,000	-,525	
		Significance (2-tailed)	.	,000	
		df	0	165	
	OVERLOAD	Correlation	-,525	1,000	
		Significance (2-tailed)	,000	.	
		df	165	0	

a. Cells contain zero-order (Pearson) correlations.

Appendix 9: One-way ANOVA – education – PE, SI, C-19

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
TotalPE	1 No education	3	31,00	,000	,000	31,00	31,00	31	31
	2 High School	21	27,33	3,890	,849	25,56	29,10	18	35
	3 Certificate of Apprentienceship	17	25,88	7,079	1,717	22,24	29,52	6	35
	4 University Bachelor degree	72	28,65	4,166	,491	27,67	29,63	17	35
	5 University Master degree	43	28,28	4,532	,691	26,88	29,67	8	35
	6 University PhD. degree	2	24,00	5,657	4,000	-26,82	74,82	20	28
	7 Other	10	24,40	7,806	2,468	18,82	29,98	5	31
	Total	168	27,85	4,945	,382	27,09	28,60	5	35
TotalSI	1 No education	3	38,3333	4,16333	2,40370	27,9910	48,6756	35,00	43,00
	2 High School	21	37,2857	5,17825	1,12999	34,9286	39,6428	28,00	46,00
	3 Certificate of Apprentienceship	17	34,1765	9,28194	2,25120	29,4041	38,9488	7,00	47,00
	4 University Bachelor degree	72	36,6806	5,15349	,60734	35,4695	37,8916	23,00	49,00
	5 University Master degree	43	35,7674	5,44163	,82984	34,0928	37,4421	19,00	49,00
	6 University PhD. degree	2	28,5000	,70711	,50000	22,1469	34,8531	28,00	29,00
	7 Other	10	30,5000	8,57969	2,71314	24,3625	36,6375	12,00	42,00
	Total	168	35,8333	6,13976	,47369	34,8981	36,7685	7,00	49,00
TotalC19	1 No education	3	12,0000	2,64575	1,52753	5,4276	18,5724	10,00	15,00
	2 High School	21	10,4762	4,06963	,88807	8,6237	12,3287	6,00	18,00
	3 Certificate of Apprentienceship	17	12,7059	5,19332	1,25957	10,0357	15,3760	3,00	21,00
	4 University Bachelor degree	72	14,2778	4,70607	,55462	13,1719	15,3837	3,00	21,00
	5 University Master degree	43	15,2791	4,56866	,69671	13,8730	16,6851	3,00	21,00
	6 University PhD. degree	2	19,0000	1,41421	1,00000	6,2938	31,7062	18,00	20,00
	7 Other	10	13,5000	5,70088	1,80278	9,4218	17,5782	4,00	21,00
	Total	168	13,8690	4,86163	,37508	13,1285	14,6096	3,00	21,00

Appendix 10: One-way ANOVA – Age – SI, FC, IO, CO

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
TotalSI	1 18-29	79	37,11	4,891	,550	36,02	38,21	28	48
	2 30-39	23	33,30	7,048	1,470	30,26	36,35	12	49
	3 40-49	22	34,09	8,194	1,747	30,46	37,72	7	49
	4 50-59	39	35,90	6,398	1,025	33,82	37,97	19	47
	5 60+	5	34,40	2,074	,927	31,83	36,97	31	36
	Total	168	35,83	6,140	,474	34,90	36,77	7	49
TotalFC	1 18-29	79	38,97	4,961	,558	37,86	40,09	27	49
	2 30-39	23	36,26	8,519	1,776	32,58	39,94	7	49
	3 40-49	22	38,05	4,076	,869	36,24	39,85	31	46
	4 50-59	39	34,79	5,681	,910	32,95	36,64	14	44
	5 60+	5	32,80	4,087	1,828	27,73	37,87	27	38
	Total	168	37,33	5,874	,453	36,43	38,22	7	49
TotalIO	1 18-29	79	21,73	3,296	,371	21,00	22,47	14	30
	2 30-39	23	22,26	5,529	1,153	19,87	24,65	9	32
	3 40-49	22	22,14	4,673	,996	20,06	24,21	13	31
	4 50-59	39	20,00	4,323	,692	18,60	21,40	10	28
	5 60+	5	18,20	3,421	1,530	13,95	22,45	15	23
	Total	168	21,35	4,167	,322	20,72	21,99	9	32
NEWTotalCO	1 18-29	79	12,97	3,945	,444	12,09	13,86	5	21
	2 30-39	23	12,70	5,076	1,058	10,50	14,89	3	21
	3 40-49	22	13,95	3,823	,815	12,26	15,65	7	19
	4 50-59	39	10,51	3,456	,553	9,39	11,63	5	18
	5 60+	5	11,60	2,302	1,030	8,74	14,46	9	15
	Total	168	12,45	4,084	,315	11,83	13,07	3	21