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**MOBILE IT CONSUMERIZATION IN TERMS OF RECRUITERS'**

**WORK AND LIFE**

Master's Thesis

Work and Organizational Psychology

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I declare that the I have compiled the paper independently and all works, important standpoints and data by other authors have been properly referenced and the same paper has not been previously been presented for grading.

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## **ABSTRACT**

The current study aims was to investigate the interrelations between mobile IT consumerization and recruiters' work and life domains. The data collection method was an online administrated survey, while statistical data analysis methods included correlational and regression analyses. It was found that encouragement for dual use of mobile IT leads to a lower level of work-life conflict and has positive effect onto the well-being of recruiters. ICT-related self-efficacy was found to increase the perceived productivity of recruiters, but encouragement for dual use of mobile IT as well as work-life conflict were found to not to be related to productivity. Work-life segmentation preference was found to increase the level of work-life conflict felt by recruiters.

Keywords: recruiters, IT consumerization, dual use of mobile IT, technology self-efficacy, productivity, work-life conflict, work-life conflict segmentation preference.

## INTRODUCTION

According to Russell-Rose and Chamberlain (2016), “the role of the recruitment professional is to find people who are the best match for a client brief and return a list of qualified candidates in the shortest possible time”, and recruitment can be defined as a “process of finding and attracting capable applicants for employment”. The modern technologies have affected recruitment and have provided advantages to the recruitment practices (Ladkin and Buhalis 2016). Recruitment as a sphere of HR has significantly changed from doing paperwork to digital or electronic processes, which can be called e-recruitment, the driver for which is a race for a better pool of candidates (Holm 2014). The development of e-recruitment is seen as an enhancement for recruiters’ job (Sinha and Kshatriya 2017). Using social media like Facebook or LinkedIn to reach the candidates are becoming more common in the process of searching for candidates (Nordström 2014; Krishnan 2014). Social recruiting is considered to be more fast and efficient for finding the people who would fit the requirements (Nordström 2014).

The employees nowadays have much more ways to reach others and to be reached by the means of technologies compared to their colleagues from the past decades (Harris et al. 2015). Those technologies include “the Internet, mobile phones, e-mail and messaging that can be checked at any time, and work that can often be completed remotely, after normal work hours” (Harris et al. 2015). Moreover, technologies are being constantly changed by putting into practice new features like new user interface of applications (Harris et al. 2015). On one hand, those aspects are not essentially negative, but, on the other hand, the omnipresence of access, “always-on” lifestyle and the speed of changes have negative consequences like decreased productivity and technology-related stress (Derks et al 2015; Galluch 2015; Harris et al. 2015). The positive side is that information and communication technologies has made employees free from fixed workplace and made them able to perform their work tasks at any remote location (Leung and Zhang 2017). Hence, teleworking, which refers to remote work done using information and communication technologies (Sullivan, 2003), became common among different organizations (Leung and Zhang 2017).

Today mobile phones’ functions allow to use them as a handheld computer (Haverila 2012 referenced in Hung et al. 2015). That leads to the omnipresence of mobile technologies in our

lives (Ferreira 2011 referenced in Hung et al. 2015), which becomes a source of stress (Hung et al. 2015; Patel et al. 2012; Duxbury et al. 2014). Mobile phones are described as paradoxical technology due to blurring the work-life boundaries (Jarvenpaa and Lang 2005 referenced in Köffer et al. 2014). Köffer et al. (2014) argues that nowadays, when mobile IT, especially smartphones, has become very common, it is usual to answer work-related messages or calls during home hours and to answer personal messages or calls being at work. The modern way of doing work is having the work-life boundaries being blurred (Köffer et al. 2014).

One of the consequences of technology omnipresence can be perceived technology overload, which refers to “the point in which a marginal addition of new technology reaches the point of diminishing marginal returns” (Karr-Wisniewski and Lu 2010 referenced in Harris et al 2015). “Technology overload has been associated with a number of undesirable outcomes, such as higher levels of stress, burnout, and lower productivity” (Diaz et al. 2012; Karr-Wisniewski and Lu 2010; Mano and Mesch 2010; Reinke and Chamorro-Premuzic 2014; Tarafdar and Ragu-Nathan 2010; Thomée et al 2007 referenced in Harris et al 2015).

Nonetheless, not that much is known about the interrelation between technology overload and work-family conflict (Harris et al 2015). However, the studies of work-family conflict demonstrate that it can lead to negative career outcomes (Eby et al. 2005 referenced in Harris et al 2015), turnover and poor health (Carlson et al. 2011 referenced in Harris et al. 2015), as well as absenteeism and increased strain and lower levels of performance and job satisfaction (Amstad et al. 2011; Carlson et al. 2000 referenced in Harris et al. 2015). “Individuals find it hard to balance their work and family roles due to the excessive workload and intrusion of personal lives brought about by ICTs, which may result in job burnout, marriage breakdown, physical and mental health problems, and life dissatisfaction” (Ford et al., 2007; Frone et al., 1992 referenced in Leung and Zhang 2017).

Information technology (IT) has always been a source of vanishing boundaries between work and life (Köffer et al. 2015). Telework, which has started in the 90s, caused blurring work-life boundaries (Köffer et al. 2015). Hence, it has become extremely important for teleworkers to balance work and home roles while working at home (Thatcher and Zhu 2006 referenced in Leung and Zhang 2017). Due to the development of mobile technologies an opportunity to work

from almost any place and at any time the increasing distinction between work and private life has emerged (Davis, 2002 referenced in Köffer et al. 2015). The increasing work-life conflict has created a challenge for organizations and its employees to keep a proper balance (Köffer et al. 2015). Köffer et al. (2015) argues that, despite the fact that the topic of work-life balance is not new for scholars, there are still many employees who are worried about keeping the balance in order because of the opportunity to work in a flexible schedule due to the new technologies. A lot of companies allow workers to choose convenient working time to make them being able to deal with both work and private duties (Matos and Galinsky 2014 referenced in Köffer et al. 2015). Although the companies were putting efforts into dealing with the employees' work-life balance, there is a rise of workers' work stress, which quite often causes sick-leaves (Köffer et al. 2015).

An example of an organization trying to solve the problem is Volkswagen making the corporate e-mail unavailable for employees after the working hours (Ghislieri et al. 2017; Köffer et al. 2015). Another example is French labour unions together with representatives of organizations made an agreement to break the connection with tools communication for eleven hours in a row (Köffer et al. 2015). In order to increase employees' performance, German company Daimler has created a policy, according to which all the emails that would be delivered upon the time when employees' had holidays will be deleted automatically (Ghislieri et al. 2017; Köffer et al. 2015). The listed measures illustrate the organizations notice the issue.

A company that accepts IT consumerization, which can be defined as “the dual use of devices and applications/services (e.g. email services and cloud storage)” (Weeger et al. 2016), is considered as workplace that gives its employees more flexibility and freedom (Moschella et al. 2004 referenced in Köffer et al. 2014). In order to give them more autonomy, a company can provide its employees with freedom of selecting what technologies they will use for work purposes (Harris et al. 2012 referenced in Köffer et al. 2014). The disadvantage of such practices is that the dual use of of privately owned IT, which means its use for both work and personal purposes, leads to blurring boundaries of work and life (Schalow et al. 2013 referenced in Köffer et al. 2014). It is becoming more common that people use IT, which can be either previously owned or provided by company, for both work and personal purposes, especially mobile devices (Yun et al. 2012). If a company provides it's employees with modern mobile devices they are less likely to buy other device for personal use (Köffer et al. 2014).

While practitioner literature mainly give a positive image of IT consumerization effect (Niehaves et al. 2012 referenced in Köffer et al. 2014). Köffer et al. (2014) states that it was found ambiguous by different studies. The studies of the use of ICT at home for work purposes has demonstrated contradictory results (Leung and Zhang 2017): while some studies has demonstrated that the increased flexibility, related to the opportunity to schedule work in a more convenient way, increased productivity, job satisfaction and the balance between work and private life (Hill et al. 1998; Tremblay 2002 referenced in Leung and Zhang 2017), others oppositely illustrated the increase of work-life conflict, stress and anxiety due to communication technologies (Brod 1984; Felstead and Jewson, 2000 referenced in Leung and Zhang 2017). There is a scientific proof that having the work and life boundaries in order affects employees' psychological health and it is one of the main components of well-being (OECD 2013 referenced in Köffer et al. 2014).

The aim of the current study is to investigate the interrelations between mobile IT consumerization and recruiters' work and life domains. More specifically, the study focuses on (1) how the encouragement for dual use of mobile IT is related to work-life conflict, perceived productivity and employee well-being, and (2) the relationships between work-life conflict, work-life segmentation preference, productivity and ICT self-efficacy.

Research hypotheses are:

- H1: ICT self-efficacy leads to increased productivity;
- H2: Encouragement for dual use of mobile IT leads to increased productivity;
- H3: Encouragement for dual use of mobile IT leads to increased work-life conflict;
- H4: Encouragement for dual use of mobile IT leads to decreased well-being;
- H5: Work-life conflict leads to decreased productivity;
- H6: Work-life segmentation preference leads to decreased work-life conflict.

In order to receive the data for analysis the current study uses an online administrated survey. The collected data is statistically analyzed by means of correlational and regression analyses in order to test the proposed hypotheses.



The paper starts with overview of scientific literature on the topic. The first chapter overviews such concepts as “telework”, “consumerization of IT”, “dual use of IT”, “work-life conflict”, “work-life segmentation”, “productivity” and “technology self-efficacy”. Next chapter describes the sample, data collection procedure and analysis methods. It follows by results chapter describing the received statistical data and hypothesis testing. The paper concludes with discussion of the results, limitations and, finally a summary.

# 1. THEORETICAL BACKGROUND

## 1.1. Telework

Information technology (IT) has always been a source of vanishing boundaries between work and life (Köffer et al. 2015). Telework, which has started in the 90s, caused blurring work-life boundaries (Köffer et al. 2015). Hence, it has become extremely important for teleworkers to balance work and home roles while working at home (Thatcher and Zhu 2006 referenced in Leung and Zhang 2017). Due to the development of mobile technologies an opportunity to work from almost any place and at any time the increasing distinction between work and private life has emerged (Davis, 2002 referenced in Köffer et al. 2015). The increasing work-life conflict has created a challenge for organizations and its employees to keep a proper balance (Köffer et al. 2015). Köffer et al. (2015) argues that, despite the fact that the topic of work-life balance is not new for scholars, there are still many employees who are worried about keeping the balance in order because of the opportunity to work in a flexible schedule due to the new technologies. A lot of companies allow workers to choose convenient working time to make them being able to deal with both work and private duties (Matos and Galinsky 2014 referenced in Köffer et al. 2015). Although the companies were putting efforts into dealing with the employees' work-life balance, there is a rise of workers' work stress, which quite often causes sick-leaves (Köffer et al. 2015). An example of an organization trying to solve the problem is Volkswagen making the corporate e-mail unavailable for employees after the working hours (Ghislieri et al. 2017; Köffer et al. 2015). Another example is French labour unions together with representatives of organizations made an agreement to break the connection with tools communication for eleven hours in a row (Köffer et al. 2015). In order to increase employees' performance, German company Daimler has created a policy, according to which all the emails that would be delivered upon the time when employees' had holidays will be deleted automatically (Ghislieri et al. 2017; Köffer et al. 2015). The listed measures illustrate the organizations notice the issue.

The acceptance of workplace ICT usage has been caused by the increased productivity need (Davey 2012 referenced in Leung and Zhang 2017). ICT assists working in multitasking mode, helps to coordinate work and increases speed of processes by declining space- and time-related borders among various activities (Cardona et al. 2013). Practices that are based on ICT have led

to spreading of such flexible arrangements of work as telework and flextime, which let employees to gain more autonomy in performing their jobs (Hill et al. 2003 referenced in Leung and Zhang 2017).

According to Leung and Zhang (2017) telework, which is a synonym for telecommuting, can be described as “flexible work arrangement that allows employees, usually with the aid of electronic communication devices, to accomplish their work in various locations instead of a fixed, central worksite”.

ICT is central in telework practices because it allows to stay in contact and coordinate work with the main office and other employees (Nilles 1994 referenced in Leung and Zhang 2017). It has become essential to use ICT for work purposes at home among telecommuters because home is the main location for them to do their job (Davis and Polonko 2001 referenced in Leung and Zhang 2017). Leung and Zhang (2017) argue that telework is beneficial for employees, organizations and even the society. For example, they state that on the employee level telework allows to save money on transportation, buying clothes, eating during the workday and providing daycare for their children. Thus, mothers, who work remotely have more opportunities to combine private and work duties. What concerns the organizational level, Leung and Zhang (2017) point out that telework allows to economize on parking, allows companies to reduce the office spaces and amount of the office equipment. Talking of the societal level, telework reduces the car traffic and, respectively, the pollution of air, decrease energy consumption and decrease the deterioration on transportation level (Leung and Zhang 2017).

## **1.2. Consumerization and dual use of IT**

As argued by Köffer et al. (2014) and Niehaves et al. (2012), Moschella et al. (2004) were the first who introduced the IT consumerization term and pointed out that “the same devices and applications are used by businesses and consumers alike”. Weeger et al. (2016) argues that nowadays scholars may define IT consumerization as “the dual use of IT for private and business purpose”.

A shift of the process of computerization, which caused emergence of IT in the consumer market on the first place and then being utilized at different organizations, and made employees push the devices that were privately used to their workplace, has caused the IT consumerization (Baskerville 2011; Weiß and Leimeister 2012). Hence, as argued by Weeger et al. (2016), IT consumerization is a reason for blurred boundaries between technologies used for private purposes and the ones used for business purposes. One more aspect of IT consumerization is “the ownership of devices, applications and services” (Weeger et al. 2016). Köffer et al. (2015) argue that IT consumerization is related not only to devices and hardware such as computers and smartphones, but also software like social networks or services of cloud services. Niehaves et al. (2012), for example, describes consumerization as “a scenario where workers invest their own resources to buy, learn, and use a broad range of popular consumer technologies and application tools in a work context”. IT consumerization is considered as a significant trend, which challenges workplace concepts that are seen as traditional (Harris et al. 2012).

Friedman and Hoffman (2008) defined mobile devices as “portable electronic systems that store and manipulate potentially confidential information”. Employees expectations from enterprise IT infrastructure have been changed by the advantages provided by consumer mobile devices, for example, intuitive usage concepts and attractive design (Weiß and Leimeister 2012). Weeger et al. (2016) argue that the employees’ expectations are not always met by the enterprise IT. Moreover, the usage of the devices that are personally owned give employees advantages like higher level of autonomy and a more satisfying user experience (Harris et al. 2011; Murdoch et al. 2010 referenced in Weeger et al. 2016). One of the reasons of the growing popularity of consumer mobile devices is the development of those targeting the corporate usage (for example, Blackberry) (Weeger et al. 2016). That causes the usage of devices, which are owned privately, for work purposes by employees, even if they have to break the policies (Holtsnider and Jaffe 2012 referenced in Weeger et al. 2016). For example, as argued by Weeger et al. (2016), employees might use corporate SIM cards that are supposed to be used in corporate cellphones in their own mobile devices.

Concerning smartphones in particular, they are defined by Kim (2008) as “a wireless telephone set with computer-enabled features”. Yun et al. (2012) state that smartphones differ from other

mobile devices, such as tablet computers or laptops, by their high mobility and, respectively, the more convenient use of the calling function.

Yun et al. (2012) define an “office home smartphone” (OHS) as “a smartphone device that can be employed for personal uses as well as for non-personal, nonfamily purposes”. According to Yun et al. (2012), examples of work-related use of OHS could be checking and answering e-mails related to work, usage of instant messengers for work purposes, entering company’s web portals or different groupware systems by means of cellular network or Wi-Fi. “Such functions may include mobile communication, mobile information searches, mobile transaction searches, and accessing of mobile office functions such as word processing, spreadsheets, presentation software, calendars, and address books, as well as use of mobile instant messaging software to chat with co-workers for organizational purposes” (Yuan et al. 2010 referenced in Yun et al. 2012). Because smartphones appeared not so long ago, the OHS concept should be differentiated from other ICT-related working arrangements like teleworking or mobile work (Yun et al. 2012).

Weeger et al. (2016) define BYOD as “the act of bringing personally owned mobile devices to the workplace, connecting them to the corporate network and using them for business purposes”. Another definition of BYOD is “interaction between employees and their personally owned devices while dealing with work related tasks” (Wang and Nemati 2016). Weeger et al. (2016) states that BYOD is connected to the concept of IT consumerization and can be seen as its sub-trend. Nonetheless, the focus of BYOD is exceptionally hardware (Harris et al. 2013).

There are different strategies related to the use of mobile devices described by scholars (Ghosh et al. 2013; Köffer et al. 2014; Weeger et al. 2016; Yin et al. 2014):

- Here is your own device (HYOD) – The company provides devices for its employees;
- Choose your own device (CYOD) – Employees can choose devices from a number of devices, which are provided by the company;
- Bring your own device (BYOD) – The company provides material support for devices privately owned by employees;
- On your own device (OYOD) - Employees are free to bring privately owned devices while having to support provided by the company.

Yin et al. (2014) state that employers balance between the possible risks and the ability to control when they define what strategy or policy to adapt. While the employers want to increase the satisfaction of the employees, there is a need to avoid losing employee control and avoid the possible risks (Yin et al. 2014). Among the issues Wang and Nemati (2016) distinguish risks in security, possibility of sharing data and the complexity of support. Weeger et al. (2016) argues that in order to increase data security companies establish official BYOD programs so that their employees can choose the device that should be the most convenient for them to use for both life and work purposes, but at the same time meets the requirements established by company. However, according to Ghosh et al. (2013), BYOD can be seen as a compromise between acceptable levels of risks and employee controllability.

### **1.3 Outcomes of IT dual use**

The results of prior studies have demonstrated that teleworkers experience higher level of flexibility compared to office workers (Hilbrecht et al. 2008, Hill et al. 1996 referenced in Yun et al. 2012), and teleworking increases work productivity (Butler et al. 2007). Despite the fact that telework has been praised for enhancing work-life balance of employees and their productivity (Apgar 1998 referenced in Leung and Zhang 2017), concerns were expressed regarding the negative effects of ubiquitous use of ICT (Goldstein 2003 referenced in Leung and Zhang 2017). “It has been argued that the connectivity of communication devices blurs the boundaries between the domains of work and home, leading to the invasion of work into private lives and inducing negative cognitive responses, such as stress, anxiety, and mental fatigue among users”. (Brod 1984; Tarafdar and Ragu-Nathan 2010 referenced in Leung and Zhang 2017).

Concerning dual use of IT, Yin et al. (2014) argue that both company and employee benefit. The former studies have demonstrated that, for instance, dual use of IT is positively affects employees’ work performance in terms of higher levels of mobility and flexibility (Niehaves et al. 2013a). Other studies have demonstrated that BYOD policies are cost saving and improve productivity, satisfaction and morale of employees (Kokitanurit et al. 2011; Lebek et al., 2013; Shim et al., 2013). Nevertheless, studies by Niehaves et al. (2012, 2013b) has demonstrated that IT consumerization increases workload causing a demand for separating domains of work and

life. Study done by Köffer et al. (2014) has demonstrated that dual use of mobile it can lead to increased work-life conflict and work overload.

#### **1.4 Work-life conflict and work-life segmentation**

The interrelation of work and non-work dimensions of employees are described in the literature by means of different terms. Köffer et al. (2015) argue that the term of work-family conflict is one of the most common ones. The concept is defined as “a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some respect” (Greenhaus and Beutell 1985). Köffer et al. (2014) state that in the literature can be find various synonyms for the work-family conflict term, such as work-(to)-life and work-(to)-home for work-family, and interference for conflict, respectively. Moreover, according to Köffer et al. (2015), the term of work-family balance has received a great deal of attention. Work-family balance is defined as “the degree to which an individual is able to simultaneously balance the temporal, emotional, and behavioral demands of both paid work and family responsibilities” (Hill et al. 2001).

The current study utilizes the concept of work-life conflict instead of work-family conflict, because it is a broader concept, which, according to Köffer et al. (2014), “does not solely focus on family aspects”.

Another related concept is work-life blurring, which refers to “experience of confusion or difficulty in distinguishing one's work from one's family roles in a given setting in which these roles are seen as highly integrated, such as doing paid work at home” (Desrochers and Sargent, 2004). In opposite to work-family conflict or balance, work-life blurring implies no positive or negative results (Köffer et al. 2015). It refers to a state which can be viewed by an individual as a pleasant or unpleasant and, respectively, leads to work-life balance or work-life conflict (Yun et al. 2012).

A study performed by van Steenbergen et al. (2007) has found that a common interference between work and life dimensions is linked to different strains such as depressive symptoms and emotional exhaustion.

Concerning work-life conflict and IT use, different studies demonstrate that work-life conflict is related to general IT usage (Ayyagari et al. 2011), smartphone usage (Yun et al. 2012) and mobile e-mailing (Tuerl et al. 2011). The issue of interrelation between work-life conflict and smartphone use is linked to the behaviors like constant notification monitoring and instant reaction to received e-mails (Derks et al. 2015). In contrast, telework may lead to increased work-life balance due to the fact that teleworkers have a higher level of job flexibility (Hill et al. 2003).

Segmentation can be described as “keeping aspects of work and family separate from each other”, while integration refers to “merging and blending the aspects of the two domains” (Kreiner 2006 referenced in van Park and Jex 2011). Due to the fact that technologies are highly interrelated with our everyday lives, people can create their personal strategies for cross-role usage of ICT, for example, doing the job at home or using office computers for personal purposes (Park and Jex 2011).

The smartphone usage for work purposes during the non-work time can lead to interruptions of work and personal roles since it lets matters, which are related to work, to appear in the personal domain. Smartphone usage causes blurring work-life boundaries making employees being available for work-related duties during late time, and days-off (Valcour and Hunter 2005 referenced in Derks et al. 2016). Derks et al. (2016) state that such smartphone use can affect different employees in different ways. Particularly, the ones who prefer to separate the domains of work and life to the highest degree (segmentators or segmenters) can be exposed to a stronger conflict in case if the smartphone usage, which is related to work, invades their personal domain then their colleagues who choose to integrate domains of work and life (integrators) (Derks et al. 2016).

## **1.5 Productivity and technology self-efficacy**

According to Hung et al. (2015), “productivity generally refers to the ratio of output and input”. Different studies have demonstrated that technology-related stress and its constituents causes



decreased productivity (Spielberger and Reheiser 1994; Tarafdar et al. 2007; Wheeler and Riding, 1994 referenced in Hung et al. 2015).

Nevertheless, there are other data concerning that interrelation. Hung et al. (2011) found a positive correlation between productivity and technology-related stress. Two psychologists Robert Yerkes and John Dodson developed Yerkes-Dodson law in 1908, which can provide an explanation for that paradox (Onyemah, 2008 referenced in Hung et al. 2015). The law argues that a positive correlation between stress and productivity until a particular extreme point, after which the correlation becomes negative, what means that stress-related productivity depends on the level of that stress (Hung et al. 2015).

Yun et al. (2012) argue that modern smartphones, compared to the old-fashioned cell phones, have expanded connectivity features and more powerful hardware, what leads to ability to increase the productivity in addition to regular messaging or voice calling. For example, it is not hard imagine examining documents or checking e-mail by the means of a smartphone (Yun et al. 2012). Nonetheless, there are disadvantages of the described increased productivity, which are related to work-life conflict (Ayyagari et al. 2011; Kudyba and Diwan referenced in Hung et al. 2015; Yun et al. 2012) and increased workload (Yun et al. 2012). Yun et al. (2012) states that “as the amount of work a person can handle within the time allowed increases and the quality of work improves, that person’s perception of work overload and work-to-life conflict can increase or decrease”.

Hung et al. (2015) argue that technology-related stress may not be significantly related to mobile technologies because, for example, the users of mobile technology are less affected by complexity of technologies since the mobile applications’ interfaces are more user-friendly and cause less difficulties for newbies. Hence, users experience less stress related to inability to perform particular job due to difficulties with technologies (Hung et al. 2015).

On the other hand, Hung et al. (2015) state that mobile IT users might experience stress related to communication overload. The source of such experience is the accessibility which lead to frequently delivered messages and possibility to be reached at any time, which, respectively, can be a source of technology-related stress (Hung et al. 2015).

Despite the mentioned above, accessibility is viewed as an enhancement for peoples' live quality and for personal productivity (Ollo-López and Aramendía-Muneta 2012). The consistent connectivity is seen as an improvement for the speed of accomplishing work-related tasks and, respectively, productivity (Ayyagari et al. 2011; Clark and Kalin 1996 referenced in Hung et al. 2015). That encourage companies to consider usage of mobile ICT (Hung et al. 2015). Consequently, the outcome is burnout due to ICT (Ayyagari et al. 2011) and lack of time for personal duties (Middleton and Cukier 2006; Murray and Rostis 2007 referenced in Hung et al. 2015). Mobile ICT as an increasing stress source (Barley et al. 2011) and leads to extra work demands related to employees' inability to be detached (Ayyagari et al. 2011).

Tarafdar et al. (2014) state that self-efficacy as individual's perception of availability of particular activity performance has an impact on his or her emotional responses including anxiety and stress, while performing that activity. Technology self-efficacy, which can also be called computer self-efficacy, refers to "individual's judgement about his or her ability to use computers in the accomplishment of a task" (Compeau and Higgins 1995a referenced in Tarafdar et al. 2014; Wu et al. 2017). Stresses are generated when one perceive that his or her resources are not enough in order to deal with faced threats (Foldman 2013 referenced in Wu et al. 2017). Thus, person's evaluation is a significant anxiety producing factor (Wu et al. 2017). Hence, Wu et al. (2017) argues that employees who have a high level of technology self-efficacy are expected to be confident with dealing with stress creators due to perceived psychological recourses and skills. Thus, technology self-efficacy is related to lower level of anxiety caused by computer use (Compeau and Higgins 1995a referenced in Tarafdar et al. 2014; Achim and Al Kassim 2015; Wu et al. 2017), increased level of comfort in using computers (Compeau et al. 1999 referenced in Tarafdar et al. 2014) and a positive technology-related attitude (Venkatesh and Davis 1996 referenced in Tarafdar et al. 2014). Moreover, technology self-efficacy leads to higher level of computer-related performance (Compeau and Higgins 1995b referenced in Tarafdar et al. 2014). "Individuals having high technology self-efficacy feel positive about their ability to use technology to accomplish a task" (Compeau and Higgins 1995a referenced in Tarafdar et al. 2014).

## 2. METHODOLOGY

### 2.1 Sample and procedure

Table 1 illustrates the sample data. The questionnaire was completed by 43 individuals who were working as recruiters in different countries, mostly, Russia (65.12 percent) and Lithuania (20.93 percent). 20.93 percent of the sample were male and 79.07 percent were female.

Table 1. Sample data

		n	%
Gender	Male	9	20.93
	Female	34	79.07
Age	Below 25	11	25.58
	Between 25 and 34	29	67.44
	Between 35 and 44	3	6.98
Country	Russia	28	65.12
	Lithuania	9	20.93
	Others	6	13.95
Tenure at current workplace	Less than 6 months	14	32.56
	Between 6 months and 2 years	22	51.16
	Between 2 and 5 years	7	16.28
Overall working experience	Less than 6 months	2	4.65
	Between 6 months and 2 years	11	25.58
	Between 2 and 5 years	14	32.56
	Between 5 and 10 years	14	32.56
	More than 10 years	2	4.65

Concerning the age, the largest group was between 25 and 34 years old (67.44 percent) followed by the group of respondents of age below 25 years old (25.58 percent). The smallest age group consisted of people of the age between 34 and 44 years old (6.98 percent). Regarding tenure at current workplace, 51.16 respondents reported the tenure between 6 months and 2 years, 32.56 percent reported tenure below 6 months and 16.28 reported tenure between 2 and 5 years. The

overall working experience is following: 2 equal sized groups reported experience between 2 and 5 years, and between 5 and 10 years, 25.58 percent of respondents had work experience less than 6 months and 4.65 – more than 10 years.

## **2.2 Measures**

All the measurement items used 5 point Likert scale, where 5 referred to “Always”, “Completely agree” or “Fits perfectly”, depending on the question or statement, and 1 referred to “Never”, “Completely disagree” or “Does not fit”. In case of reverse scoring for the item, it was opposite and a note was added asking the respondents to pay attention to the reverse scoring. I before the questions regarding mobile IT the questionnaire included a note informing that the term "mobile IT" refers to two types of mobile devices: laptops and smartphones.

The “self-efficacy” and “well-being” items were adapted from the Copenhagen Psychosocial Questionnaire (Pejtersen et al. 2010) and modified in order to reflect ICT-related self-efficacy. The “productivity due to new technologies” items were adapted from Tarafdar et al. (2007) and modified in order to reflect self-efficacy related to the new technologies. The “encouragement for dual use of mobile IT” and “work-life segmentation preference” items were adapted from Köffer et al. (2014). The number of items used for each variable can be seen in Table 2.

The questionnaire was administrated online and had 2 versions: the first one was in English language and the second one was in Russian language. The Russian version was translated by a native speaker. The respondents were contacted by means of social networks (Linkedin), asked to complete the online survey, provided with the questionnaire link (two links in case of a Russian-speaking country, e.g. Russia or Ukraine) and to spread the questionnaire among their colleagues who work as recruiters as well.

The online questionnaire was accompanied with a short message describing the purposes of the study, approximate time needed to complete the questionnaire. It was mentioned that the study results can be shared in order to increase motivation. The contact e-mail was provided in case if

the respondents would have any questions. Moreover, confidentiality was guaranteed in order to receive the most honest answers and to meet the ethical requirements.

Table 2. Sources of measurement items

Variables	Number of items	Source
ICT self-efficacy	6	Adapted from the Copenhagen Psychosocial Questionnaire (Pejtersen et al. 2010) and modified
Productivity due to new technologies	4	Adapted from Tarafdar et al. (2007) and modified
Encouragement for dual use of mobile IT	6	Adapted from Köffer et al. (2014)
Work-life conflict	4	Adapted from the Copenhagen Psychosocial Questionnaire (Pejtersen et al. 2010)
Work-life segmentation preference	4	Adapted from Köffer et al. (2014)
Well-being (includes 4 sub-variables: burnout – 4 items, stress – 4 items, depressive symptoms – 3 items, cognitive stress – 3 items)	14	Adapted from the Copenhagen Psychosocial Questionnaire (Pejtersen et al. 2010)

In order to test the reliability of the variables Cronbach's alphas (Table 3) were counted for each of them.

Table 3. Descriptive statistics and Cronbach's alphas of the used scales

Scales	N	Min	Max	Mean	SD	$\alpha$	Items
ICT Self-efficacy	43	2.33	5.00	3.86	0.62	0.84	6
Productivity due to new technologies	43	3.00	5.00	4.51	0.54	0.86	4
Encouragement for dual use of mobile IT	43	1.00	5.00	3.14	1.10	0.81	6
Work-life conflict	43	1.00	5.00	3.20	1.16	0.85	4
Work-life segmentation preference	43	1.00	5.00	3.30	0.97	0.73	4
Well-being including (4 sub-variables)	43	1.57	4.71	3.09	0.64	0.89	14
Burnout	43	1.75	5.00	3.49	0.78	0.86	4
Stress	43	1.00	5.00	3.29	0.79	0.80	4
Depressive symptoms	43	1.00	5.00	2.75	0.84	0.71	3
Cognitive stress	43	1.00	4.00	2.63	0.77	0.71	3

All the variables demonstrated sufficient reliability. The highest values between 0.81 and 0.89 were demonstrated by “ICT self-efficacy”, “productivity due to new technologies”, “encouragement for dual use if mobile IT”, “work-life conflict” and “well-being” variables. Such variable as “work-life segmentation preference” demonstrated a value of 0.73, which is still considered as acceptable.

### **2.3 Analysis techniques**

In order to perform the statistical analysis IBM SPSS Statistics software was applied. A descriptive analysis of the variables was conducted in order to describe the characteristics of variables. In order to test the reliability of the variables, Cronbach’s alpha was calculated for each scale.

In order to evaluate the effect of independent variables on the dependent variables, regression analysis was utilized. R square and beta coefficients were calculated in order to evaluate the evaluation the determination of independent variables. The determination significance was tested by means of ANOVA. Beta coefficients were calculated in order to evaluate the contributions of the independent variables to the overall determination.

Before conducting the regression analysis, the interrelation between variables was evaluated by means of correlational analysis (Spearman’s r) in order to avoid collinearity of the independent variables.

### 3. RESULTS

Correlational analysis showed no significant interrelation between “encouragement for dual use of mobile IT” and “work-life segmentation preferences”. Regression analysis of “work-life conflict” as a dependent variable and “encouragement for dual use of mobile IT” and “work-life segmentation preferences” as independent variables showed that the coefficient of determination (R square) was 0.27. ANOVA test showed that the regression was significant at the 0.01 level ( $F = 7.59$ ,  $df = 42$ ). The beta coefficient for “encouragement for dual use of mobile IT” was  $-0.37$  ( $p < 0.01$ ), and for “work-life segmentation preference” the beta coefficient was  $0.33$  ( $p < 0.05$ ).

A significant ( $p < 0.01$ ) negative moderate correlation ( $r = -0.40$ ) was found between “encouragement for dual use of mobile IT” and “work-life conflict”, but the latter it was found that variables were uncorrelated with “productivity due to new technologies”. Hence, they had to be excluded from the regression analysis with “productivity due to new technologies” as a dependent variable.

Regression analysis estimating the effect of “ICT self-efficacy” onto “productivity due to new technologies” indicated that “ICT self-efficacy” is significant predictor explaining 10% of variance of perceived productivity due to new technologies ( $F = 4.29$ ,  $df = 42$ ,  $p < 0.05$ ;  $\beta = 0.31$ ,  $p < 0.05$ ).

Regression analysis of “well-being” as dependent variable and “encouragement for dual use of mobile IT” as independent variable demonstrated that the latter acts as significant predictor ( $F = 5.60$ ,  $df = 42$ ,  $R\text{ Square} = 0.12$ ,  $p < 0.05$  level;  $\beta = -0.35$ ,  $p < 0.05$ ) explaining 12% of variance in well-being. However, the effect is negative meaning that more encouragement for dual use of mobile IT results in lower well-being.

Altogether, the hypotheses can be divided into 3 blocks when grouped by the dependent variable. Next, the results of hypotheses testing are presented. Concerning work-life conflict, the following hypotheses were posited:

- H3: Encouragement for dual use of mobile IT leads to increased work-life conflict;
- H6: Work-life segmentation preference leads to decreased work-life conflict.

It was found that “Encouragement for dual use of mobile IT” and “Work-life segmentation preference” accounted for 27 percent of variance in work-life conflict ( $F = 7.59$ ,  $df = 42$ ,  $p < 0.01$ ). The beta coefficient for encouragement for dual use of mobile IT was negative ( $\beta = -0.37$ ,  $p < 0.01$ ), meaning that Hypothesis 3 is disproved. Moreover, it can be stated the analysis of the data of the current study has proved the opposite: i.e. encouragement for dual use of mobile IT leads to decreased work-life conflict as experienced by respondents in this study. The beta coefficient for work-life segmentation was positive ( $\beta = 0.33$ ,  $p < 0.01$ ) what leads to the conclusion that higher preference for work-life segmentation results in a higher level of work-life conflict. That is the opposite to the proposed hypothesis. Consequently, Hypothesis 6 is disproved as well.

The second block of hypotheses has productivity as the dependent variable, and next the results concerning following hypotheses are presented:

- H1: ICT self-efficacy leads to increased productivity;
- H2: Encouragement for dual use of mobile IT leads to increased productivity;
- H5: Work-life conflict leads to decreased productivity.

In order to prepare for the regression analysis a correlational analysis was done in order to find the correlations between the next four variables: 1) productivity due to new technologies, 2) encouragement for dual use of mobile IT, 3) work-life conflict and 4) ICT self-efficacy. It appeared that neither encouragement for dual use of mobile IT nor work-life conflict had significant correlations with productivity due to new technologies meaning that Hypothesis 2 and Hypothesis 5 were not confirmed.

Regression analysis was performed to estimate whether ICT self-efficacy leads to increased productivity. R square for productivity due to new technologies has been found to be equal to 0.10 what means that ICT self-efficacy accounts for 10 percent of variance in perceived increase in productivity due to IT ( $F = 4.29$ ,  $df = 42$ ,  $p < 0.05$ ). Such low value of the determination coefficient can be explained by the fact that there are variety of other factors affecting employee productivity. As beta coefficient was of positive value ( $\beta = 0.31$ ,  $p < 0.05$ ) it can be stated that Hypothesis 1 was supported.

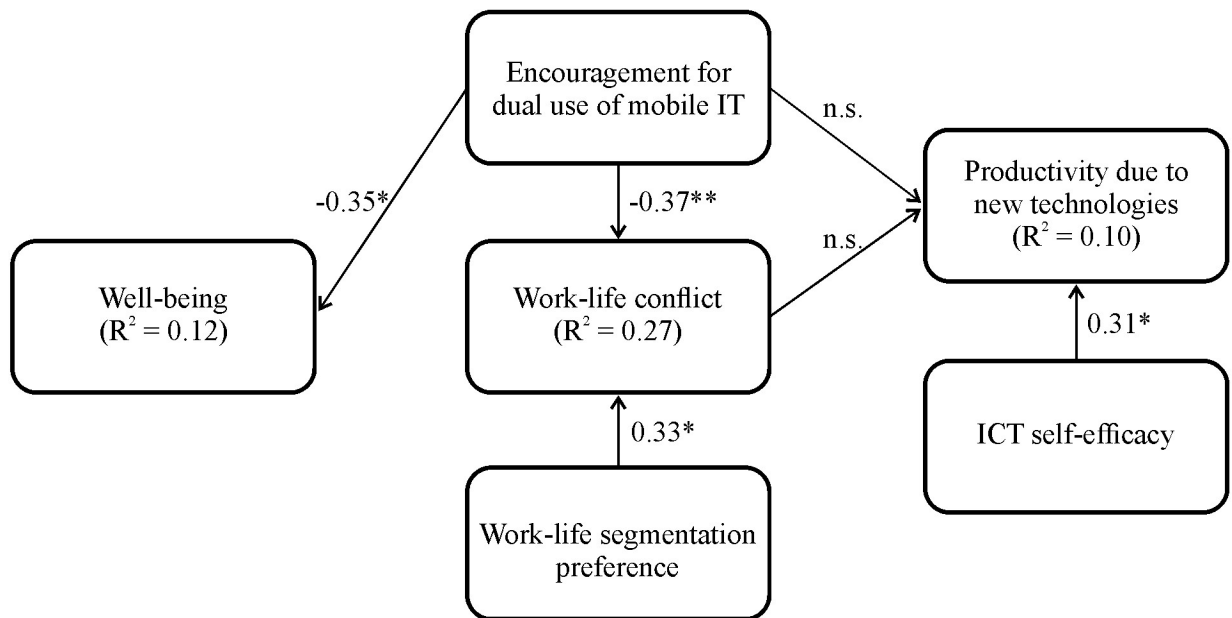


The last block consists only of one hypothesis:

- H4: Encouragement for dual use of mobile IT leads to increased well-being.

Regression analysis utilized for testing the 4th hypothesis revealed that the determination coefficient was 0.12, accounting for only 12 percent of the variance ( $F = 5.60, p < 0.05$ ). As in the previous case, it can also be interpreted as encouragement for dual use of mobile IT being only one of many other predictors of the level of well-being. The beta coefficient was negative ( $\beta = -0.35, p < 0.05$ ), but since well-being included sub-variables such as “burnout”, “stress”, “depressive symptoms” and “cognitive stress” measured in a way that the higher value of the sub-scales indicates lower well-being, the results mean that encouragement for dual use of mobile IT leads to increased well-being. Hence, the statistical analysis allows to argue that Hypothesis 4 was confirmed.

Figure 1. Hypotheses testing model



Notes: \* -  $p < 0.05$ ; \*\* -  $p < 0.01$ ; n.s. - no significant correlations.

## 4. DISCUSSION

Results of the current study have shown that encouragement for dual use of mobile IT as well as preference for work-life segmentation affect work-life balance. Also, encouragement for dual use of mobile IT positively affects well-being, and a positive effect of technology self-efficacy on productivity was found. However, no significant interrelationships appeared concerning encouragement for dual use of IT and work-life segmentation preference on one side, and productivity on the other side.

The analysis outcomes have illustrated that the workplace encouragement for dual use of mobile IT, such as smartphones, laptops and related software, decreases recruiters' work-life conflict that contradicts findings of previous studies (e.g. Köffer et al. 2014; Yun et al. 2012). That means that, if a company utilized BYOD or similar policies encouraging recruiters to use the same devices for both work and personal purposes, that may lead to reduction of the work-life conflict and, respectively, recruiters perceive less blurring of their personal and work domains. Probably, that might be related to the spread of flexible work arrangements like teleworking and home working among recruiters. For example, one of the respondents have reported that she works remotely from home using her laptop while her child is at kindergarten, and has her personal life closely tied with her working duties. Moreover, she mentioned that she might be working later or earlier than later than the usual work hours. That leads to an assumption that using the same devices for both purposes among recruiters may lead to the ability to combine personal life and work-related duties, especially in case of remote work. Another possible explanation of the revealed phenomenon is related to that a characteristic of recruiters' job is that a significant amount of time they spend communicating with other people. Since one of the functions of mobile IT is communication, especially concerning smartphones, the received notifications, e-mails, other text messages or calls support recruiters in performing their job duties (while, for instance, for software developers such messages could be disturbing). Recruiters may have flexible work hours in order to adjust to the possibility to conduct interviews after working hours. Thus, mobile devices are more facilitators than distractors for recruiters and might help them to keep personal and work domains in balance.

Furthermore, these assumptions were supported by another finding of the current study. It was found that the preference for work-life segmentation increases the level of work-life conflict. In other words, recruiters who strive to separate domains of their personal life and work perceive a higher level of conflict between their personal and work duties. The latter might be related to the assumption that remote work (from home) is common among recruiters and it leads to difficulties concerning separating work from personal (including family) life. Moreover, as mentioned earlier, the need to adjust to non-normative working hours leads to blurring of the work and life domains. Thus, it can be supposed that recruiters who can be characterized as segmentators (i.e. preferring clear borders between work and personal life) might experience difficulties when attempting to separate their work and personal activities. At the same time, recruiters who prefer to integrate their work and personal domains might be exposed to work-life conflict to a lesser degree. The author of the current paper suggests that such phenomenon is related to the characteristics of recruiters' work.

Although the current study did not allow to find whether work-life conflict and empowerment for dual use of mobile IT affects productivity, nevertheless, it was found that self-efficacy is related to information and communication technologies one of the sources of recruiters' productivity, which was expected. In other words, recruiters who feel that they can efficiently deal with issues and difficulties related to the usage of technologies might be more productive in using those technologies.

Another finding is that encouragement for using devices, such as smartphones and laptops and related applications, results in a higher level of well-being, which in the current study was considered as low levels of such concepts as burnout, general stress, cognitive stress and depressive symptoms. On one hand, such finding was unexpected. On the other hand, it logically corresponds to the other findings of the present study. Since it was found that recruiters who are encouraged for dual use of mobile IT are less exposed to work-life conflict, they can be expected to have a higher level of well-being. In general words, according to the conducted study, those of recruiters who use the same mobile devices and application for both personal and work needs are expected to be less depressed, exhausted and experience less stress.

Altogether, it was found that encouragement for dual use of mobile IT has positive outcomes for recruiters such as a higher level of psychological well-being and a lower level of work-life conflict. The interrelation between dual use of mobile IT was unable to be found, but, nonetheless, it was found that recruiters who perceive a higher level of technology-related self-efficacy might have a higher level of productivity. And the last but not the least is that the preference to segment work and life domains was found to be a predictor of work-life balance among recruiters.

#### **4.1 Limitations of the study**

Apparently, one of the main limitations of the current study is the sample size which might have affected the reliability of some results (especially the results of regression analysis where larger samples are needed to detect expected small effects) as well as restricts the generalizability of results. Moreover, the gender of the sample is not equally distributed. The majority of the sample, accounting for almost 80 percent, were woman. That might put generalizability in doubt as well at first sight but as majority of recruiters are female the sample might not be so biased in terms of gender.

Another drawback of the sample is that the respondents represented different countries, which may led to the different perception of the provided questions due to culture differences. Furthermore, the sample mostly consisted of employees of Russian organizations, accounting for nearly 65 percent, which also leads to the issue of doubtful ability to generalize the study results to the international population of recruiters.

Another limitation of the study is that the life-work conflict, which refers to the private life domain interfering the work domain, was not used as variable. Only the interrelation between the dual use of IT and work-life conflict was studied, but, on the other hand, using IT for private purposes might affect the work domain. Hence, it was only studied how dual use of IT lead the perception of work interfering life, but it was not studied how life domain interferes work domain in context of dual use of IT. Such findings could broaden the sight of the issue.

Next, the survey did not include questions concerning flexible work arrangements. Analysis of the data could lead to a better understanding of the possible reasons for the negative interrelation between encouragement for dual use and work-life conflict, on one hand, and for positive interrelation between encouragement for dual use and work-life segmentation preference, on the other hand.

Finally, concerning the mentioned above interrelations, the survey did not include questions about particular devices (whether they were smartphones or laptops) and the applications used for both work and private purposes. Thus, it was impossible to find out which of devices or applications are related to the findings of the study. In the present case it is only possible to draw conclusions about mobile IT in general.

## SUMMARY

The aim of the current study was to investigate the interrelations between mobile IT consumerization and recruiters' work and life domains. An online administrated questionnaire was developed and distributed to collect the data for testing the proposed hypotheses. In order to test the hypotheses correlational and regression analyses were utilized.

By the means of statistical analysis methods only one of the proposed hypothesis was confirmed. Two hypothesis were not confirmed using the collected data due to the fact that there were no significant interrelation between the concepts. Three of the proposed hypotheses were disproved due to the results of statistical analysis, which has demonstrated that the interrelations that were hypothesized to be positive were negative and vice versa.

In detail, the hypothesis proposing that ICT self-efficacy leads to increased level of productivity was confirmed. The statistical analysis has illustrated that ICT self-efficacy can be one of the predictors of productivity among recruiters as expected.

The hypothesis that was not confirmed was the suggestion that that productivity is affected by encouragement for dual use of mobile IT. The second unconfirmed hypothesis was that work-life conflict leads to a higher level of productivity. The conclusion that those hypotheses were not confirmed was made due to the fact that correlational analysis did not demonstrate any significant interrelations.

One of the disproved hypotheses was assuming that encouragement for dual use of mobile IT leads to increased level of work-life conflict. The statistical analysis has demonstrated that the assumption is wrong. According to the results of the analysis, encouragement for dual use of mobile IT decreases the work-life conflict. Thus, it can be argued that recruiters who are encouraged to use the same mobile technologies perceive work-life conflict to a lesser degree.

Another hypothesis that was disproved was assuming that work-life segmentation preference decreases work-life conflict. The utilization of statistical analysis allowed to argue that the segmentation preference leads to a lower level of work-life conflict. Hence, the recruiters who

prefer to segment their working and personal lives are more exposed to perceiving work-life conflict.

One more hypothesis that was disproved was that encouragement for dual use of mobile IT leads to a lower level of well-being. The analysis results demonstrated that the encouragement for dual use increases well-being. In other words, recruiters who are encouraged to use the same mobile IT for work and life purposes are exposed to burnout, stress and depressive symptoms to a lesser extent.

Overall, it can be concluded that encouraged for dual use of mobile IT recruiters experience less work-life conflict as well as burnout, stress and depressive symptoms. Thus, using the same mobile devices for both work and private purposes positively affects recruiters. On the other hand, the preference for segmenting work and life domains among recruiters leads to experiencing work-life conflict to a higher extent. Author of the current paper suggests that the features of the recruitment job might be not suitable for segmentators. In conclusion, according to the study results, it can be proposed to utilize BYOD and related practices for recruitment companies or departments.

Due to the characteristics of the sample of the current study its generalizability is questionable. Nonetheless, it provides some finding concerning consumerization of mobile IT in terms of recruiters' work and life. The future studies could test the obtained results appealing to a larger sample and a more diverse sample. Additionally, studying the relationships of reviewed concepts between particular devices or application and the work arrangements could provide a better overview of the problem.

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# APPENDICES

## Appendix 1. Measurement items

Variables	Items	Source
ICT self-efficacy	I am always able to solve difficult ICT problems (with devices, connections etc), if I try hard enough.	Adapted from the Copenhagen Psychosocial Questionnaire (Pejtersen et al. 2010) and modified
	If ICT works against me, I find a way of achieving what I want.	
	It is easy for me reach my objectives what concerns using ICT for various purposes.	
	I feel confident that I can handle unexpected ICT events.	
	When I have a problem with ICT, I can usually find several ways of solving it.	
	Regardless of what happens, I usually manage all my troubles with ICT.	
Productivity due to new technologies	New technologies help to improve the quality of my work.	Adapted from Tarafdar et al. (2007) and modified
	New technologies help to improve my productivity.	
	New technologies help me to accomplish more work than would otherwise be possible.	
	New technologies help me to perform my job better.	
Encouragement for dual use of mobile IT	My workplace encourages the use of one single device for private and work purposes.	Adapted from Köffer et al. (2014)
	My workplace encourages the use of privately owned mobile devices for work purposes.	
	My workplace encourages the use of private software accounts (e.g., email, social media) for work purposes.	
	It is easy for me to access company data and emails from my privately owned mobile IT.	
	My company offers support for my privately owned IT, if I use it for work purposes.	
	My company provides me a budget I can use for buying whatever mobile devices and applications I need for my job.	
	My workplace allows the use of company provided mobile IT for private purposes.	
	My workplace carries the cost for any private calls I may make with company provided mobile IT.	
	My company allows the installation of private applications (e.g. video player, games) on my company IT.	



Work-life conflict		Do you often feel a conflict between your work and your private life, making you want to be in both places at the same time?	Adapted from the Copenhagen Psychosocial Questionnaire (Pejtersen et al. 2010)
		Do you feel that your work drains so much of your energy that it has a negative effect on your private life?	
		Do you feel that your work takes so much of your time that it has a negative effect on your private life?	
		Do your friends or family tell you that you work too much?	
Work-life segmentation preference		I don't like to have to think about work while I'm at home.	Adapted from Köffer et al. (2014)
		I prefer to keep work life at work.	
		I don't like work issues creeping into my home life.	
		I like to be able to leave work behind when I go home.	
Well-being	Burnout	How often have you felt worn out?	Adapted from the Copenhagen Psychosocial Questionnaire (Pejtersen et al. 2010)
		How often have you been physically exhausted?	
		How often have you been emotionally exhausted?	
		How often have you felt tired?	
	Stress	How often have you had problems relaxing?	
		How often have you been irritable?	
		How often have you been tense?	
		How often have you been stressed?	
	Depressive symptoms	How often have you felt sad?	
		How often have you lacked self-confidence?	
		How often have you lacked interest in everyday things?	
	Cognitive stress	How often have you had problems concentrating?	
How often have you found it difficult to think clearly?			
How often have you had difficulty with remembering?			