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DISCONNECT! IF YOU WANT TO BE CONNECTED!

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ABSTRACT

The basic aim of this study is to explore role of smartphone use on recovery experiences through work-home interference in an integrated research model. The research is conducted in Turkish business context, so findings contribute to the literature in such way that how technological transformation has effected employee life and health in emerging economies. It is one of the preliminary studies by which impact of smartphone use for business motivations is measured in emerging economies. We assume that the results of the study may open new perspectives for cross cultural studies and may contribute to the development of new theoretical models in subjective wellbeing literature. Empirical data were collected from employees (n=223) of distinct companies from distinct industries using an online survey by convenience sampling method. According to results of structural model, recovery experiences mediate the association between smartphone use and work-home interference. (x^2=158.817, df=99, CMIN/df:1.604, GFI:0.917, CFI:0.965, TLI:0.957, RMSEA:0.054, PCLOSE:0.309). Detailed results/ findings of the study are discussed and theoretical and implicational suggestions for further research are given in the discussion part.

Keywords: Smart Phone-Use, Recovery Experiences, Work-Home Interference

JEL: M10, M12

Bağlanmak İstiyor İsen, Bağlantıyı Kes!

ÖZET

Bu araştırmanın temel amacı, akıllı telefon kullanımının kendine gelme/toparlanma deneyimleri aracılığı ile iş hayatının ev hayatına müdahalesi üzerindeki etkisini entegre bir model ile incelemektir. Araştırma, Türkiye deki çalışma ortamı bağlamında gelişmekte olan bir ekonomide teknolojik dönüşümün çalışan yaşamı ve sağlığı üzerindeki etkilerini inceleyerek ilgili yazına katkı sağlamaktadır. Ayrıca bu araştırma, cep telefonu kullanımının çalışanlar üzerindeki etkisini gelişmekte olan bir ekonomide inceleyen ilk ve öncü akademik

araştırmalardan biri olma özelliğini taşımaktadır. Araştırma bulgularının karşılaştırmalı kültür araştırmalarına yeni bir perspektif getirmesi ve de özellikle örgütsel davranış kapsamında, öznel iyi oluş yazını ile ilgili yeni ve bütüncül teorik modeller geliştirmeye katkı sağlaması hedeflenmektedir. Araştırmaya ait veriler (n=223) ulaşılabilirlik örneklem yöntemi ile farklı sektörlerde ve işletmelerde bulunan çalışanlardan yapılandırılmış anket uygulaması yöntemi ile online olarak elde edilmiştir. Yapısal eşitlik modellemesi analizleri sonuçlarına göre, çalışanların kendilerine gelme/toparlanma deneyimleri akıllı telefon kullanımı ve iş hayatının ev hayatına müdahalesi değişkenleri arasında aracı değişken vazifesi görmektedir (x^2=158.817, df=99, CMIN/df:1.604, GFI:0.917, CFI:0.965, TLI:0.957, RMSEA:0.054, PCLOSE:0.309). Bulgular ve ileriye yönelik teorik ve uygulamaya yönelik öneriler sonuç kısmında detaylı olarak tartışılmaktadır.

Anahtar Kelimeler: Akıllı Telefon Kullanımı, Kendine Gelme/Toparlanma Deneyimleri, İş Hayatının Aile Hayatına Müdahalesi

1. INTRODUCTION

Huge development in communication technology has changed our standards tremendously and converted conventional workplace environment to a broader one, which expands its borders into our private lives. Smartphones, one of the magical toys presented by this technology have become indispensable parts of our lives; the partner we spend a lot of time with, who mostly wake us up, the first interaction of the day for most of us, a baby we never forget to feed, a daughter or a son we play most with, a spouse we never fail responding, a boss we won't neglect his blink to get our attention, a friend we share our deepest secrets, a pet we never leave alone. However, this little box we have created to ease our lives has become the master of it. Although smartphones are kind of a must in every platform of our lives, we will particularly focus on smartphone use that are given to us to ease out our business life. Are they really helping us out to get our jobs done faster or do they keep us off-line by keeping us online all the time and by pushing us away and others around us… from us? Are they cynical seeds of a workaholic society? Are they interfering our work home balance or hindering our recovery experiences? This is what this study is trying to explore.

Various research has revealed that business use of smartphones, especially after work hours, weekends and vacations, is related with negative well-being, as it hinders recovery from daily fatigue and interferes with work/home balance (Derks & Bakker, 2014; Derks, Van Duin, Tims & Bakker, 2015). This gift of modern technology, which allows people to connect to work anywhere and anytime, has blurred the borders between work and home and eventually has become a sneaky member of the family (O'Mahony & Barley, 1999; Galinsky, Kim, & Bond, 2001). Davis (2002) and Jarvenpaa & Lang (2005) have pointed out the smartphones' association with work–home balance issues. On the other hand, smartphones' contribution to employee recovery is still worth researching for. As most of the researches in hand are mainly qualitative, and with limited numbers of participants, more quantitative studies on smartphones' impact on recovery and work–home interface would be needed (Derks & Bakker, 2014). This being the case in general, it is worth mentioning that very few studies have been carried out for Turkey, which is a market with excessive smartphone use. Many marketing researches available to exploit the opportunity but not the alienating impact of the magic toy on the employees and their families.

Within this context, to fill the gap in the field, the objective of this study is to find out how work-related smartphone usage influences work to home interference through recovery experiences as an individual level variable within these interactions, in Turkish business context.

We assume that the results of the study might open new perspectives for cross cultural studies and contribute to emergence of new theories. In the previous section, all of these variables in the model will be operationally defined and the theoretical relationships will be explained.

Smartphone Use After Work Hours

Smartphones have become more like handheld computers or even virtual offices for professionals rather than traditional phones. They are more developed versions of other mobile phones which offer more features like internet access, photography, multimedia and navigation on top of communication.

Smartphones have become popular all over the world, only within the last decade. In July of 2013, over 50% of mobile subscribers in the US using smartphones and this trend keeps increasing. In 2011, the global volume of mobile phones is five to six billion, which is around 11% increase versus the year before (Gartner, 2011). The number of smartphone users are assumed to be over 1.5 billion in 2015 (International Data Corporation, 3rd Quarter Report. 2013) According to a study conducted by the Pew Research Centre (2011), only 58 percent of people used their phones to text in 2007, which became 80 percent in 2010. Nokia's research found that smartphones are checked 150 times daily and 22 of them are phone calls and 23 text messages and the rest is internet usage. More than half of the mobile phones have internet access which brings them smartphone features and social media. With this trend of growing usage or maybe dependence to internet, ComScore - a digital analytics company- has found out the number of hours Americans spend collectively online, doubling since 2010. Teens and twenty plus are wired the most. The picture shows almost the same trend in Turkey. The percentage of smartphone users is rapidly increasing in the Turkish population as well, usage rate was found to be 19% in 2013. (Nielsen, Mobile Consumer Report, 2013). This number has reached to 28% in the first quarter of 2015 (Türkiyede Akilli Telefon Sahipligi, TGI Turkiye Verileri, Autumn, Connected)

Research show that, the negative effects of technology use after working hours leaves employees less time to disconnect from work, to socialise and/or to recover from work related stress. These negative effects of technology use after working hours are considered to occur, because the working hours take time away from interaction with the family and recovery from work related stress (Park et al., 2011). Furthermore, smartphone use have some physical consequences. For instance, the energy resources are depleted especially by smartphone use in the evening, which in turn influences the sleep quality unfavourably (Lanaj, Johnson, & Barnes, 2014). Similarly, data seem to suggest that smartphone use after 9 pm is linked to ego depletion by reducing sleep quantity, as well (Lanaj et al., 2014). This effect stems from reduced melatonin production due to the light of the smartphone display triggered by received emails or text messages, which hinders falling asleep. Exercise and leisure, as well as sleep quality & quantity, are known protective activities lead to positive mental and physical health. The performance and engagement of the employees may increase when they try to recover from daily business related issues (Sonnentag, 2003).

Conceptualization of Recovery Experiences

Recovery can be defined as the return of individual functional systems to the pre-stressor state after a stressful happening (Meijman & Mulder, 1998). According to both the Effort-Recovery Model and Conservation of Resources Theory (Hobfoll, 1998), it can be asserted that the recovery should occur after the work hours. In terms of The Effort-Recovery Model researchers claims that once the demands of the work are no longer imposed on the employee, physiological impacts like fatigue or work related stressors will be reversed and recovery should start. On the other hand, The Conservation of Resources Theory expects individuals gain, defend and enrich their resources- resources being physical, material or as well personal and internal. Any threat on these resources might endanger health and well-being of the individual. However, the theory puts individual into the heart of gaining, renewing and protecting resources in order to recover from stress.

Thus, both the Effort-Recovery Model and the Conservation of Resources Theory brings out two mutual processes; one being protection of the physiological and psychological state of the individual from work demands, whereas the other is to reinforcing the material and internal resources like social status, positive energy, self-efficacy and the like.

Sonnentag &Fritz (2007) conceptualized recovery experiences under four dimensions: psychological detachment, relaxation, mastery experiences and control during leisure time. Two recovery experiences are taken as relevant for smartphone users are adopted: ***(a) psychological detachment*** i.e one's ability to disconnect mentally from work; and ***(b) relaxation***, i.e. activation decrease while positive impact increases. We inserted these recovery experience types, as primary ones, since they have their origins in Effort-Recovery Model and Conservation of Resources Theory.

Psychological detachment means to mentally disconnecting from job. Individuals should be able stop thinking the work and work-related issues. Psychological detachment is not just physical absence from the work environment after work hours and staying away from work-related tasks. Detachment requires leaving the workplace physically and mentally (Sonnentag & Bayer, 2005).If not, all other bodily systems will be provoked and full recovery is not attainable. Leaving the workplace is an important step to detach from work and start the recovery process. But it is certainly not enough (Hartig, Johansson & Kylin, 2007). Detachment means disconnecting from work-related tasks -like continue business calls at home.
Following the stressful days, psychological detachment becomes crucial (Sonnentag & Bayer, 2005). If recovery intervals helps the individual to recovery between working hours this is known to be going to help the individual to show increased performance, higher levels of satisfaction form life (Sonnentag & Fritz, 2007; Binnewies, Sonnentag & Mojza, 2009). On the other hand, not disengaging from work related issues is likely to lead to fatigue, sleep complaints and decreased well-being (Van Hooff et al., 2006; Grebner, Semmer & Elfering, 2005).

The second experience is **Relaxation** which refers is characterized by being in affect of increased positive affect and decreased activation (Stone, Kennedy-Moore & Neale, 1995). Those activities which target relaxation of both mind and body will serve to the purpose in the most effective way. But also pray or meditation could serve for both purposes (Grossman, Niemann, Schmidt & Walach, 2004), jogging (Hartig, Evans, Jamner, Davis & Garling, 2003)

and listening to some music (Pelletier, 2004) can be combined. Most people prefer activities, with no social interference or influence, as relaxation seeks for non-challenging environment for people (Tinsley & Eldredge, 1995). Relaxation will certainly help people to get rid of the job stress, provided that the activities are ideally serving to the mind and the body at the same time. Research shows these experiences for recovery help diminishing stress-related issues, in the short and long term (Van der Klink, Blonk, Schene & Van Dijk, 2001; Stone et al., 1995). Technologies like e-mail, social media, cameras which make these devices "smart", keep employees enable for working even when they are not physically present at the workplace; and even when they are on annual leave! (Boswell & Olson-Buchanan, 2007). What United States Department of Labor (2002) found is very interesting that not only companies but also employees report that 7/24 availability is the nature of the job. Consequently, this implies business-related calls or emails engagement at after hours, may make psychological detachment unreal (Siltaloppi, Kinnunen & Feldt, 2009). These devices are not like pc's or laptops which are relatively passive technologies as the individual needs to turn them on. As a result, Chesley (2005) mobile phone increases the stress levels and decreases family peacefulness, where laptops and pc's are not.

It is a dilemma that the more the individual is connected to work the more worn out they will be and it will be harder to keep the performance at a sustainable level. These ups and downs will hinder the proper observation and evaluation of the performance and eventually development of the employee. (Binnewies et al., 2009). In today's modern world, continuously online employees are becoming natural and normal, and the normal consequences of fatigue, stress and isolation becomes abnormal (Sonnentag & Zijlstra, 2006; Lundberg, 2005).
Therefore, the first hyphotesis of this study is:

H1: Smartphone use after work hours has a negative impact on recovery experiences (i.e. psychological detachment and relaxation).

The Interaction Beetween Smartphone Use, Recovery Experiences and Work Home Interference (WHI)

Work to home interference (WHI), emerging conflict among of work roles with family roles, is a challenge for a lot of employees. It refers to the negative interactions among work and home districts (Greenhaus & Beutell, 1985; Van Hooff, Geurts, Kompier & Taris, 2006). Conflict among these roles involves two ways of interaction; one when home responsibilities interfere with work (HWI) and the other (WHI), vice versa (Greenhaus & Beutell, 1985; Derks, Van Duin, Tims, & Bakker,2015). Most studies showed that work-home conflicts are more prevalent than home-work conflicts. (Derks et.al., 2015; Greenhaus & Beutell, 1985, Geurts, 2003; Steinmetz, Frese & Schmidt, 2008).

Work-home conflict, which is also called as work-home interference (Magee, 2010), might occur in three ways (Greenhaus and Beutell, 1985). Firstly, the time-based work-home conflict which is associated with time demands, inhibit one's activity to be in two places at the same time. It is hard to spend time with family activities when work related activities that have to be fulfilled (Van Hooff et al., 2006; Derks et. al., 2015). Secondly, the strain based work-home conflict may occur when the work-related activities and thoughts makes person uncomfortable at home. Finally, the behavioral-based conflict comes up when work related or

home related role behaviors change places where they are supposed to be performed (Greenhaus & Beutell, 1985).

According to Derks and his colleagues (2015), technology using people to fulfill work demands at home have to deal with more conflict among roles of work and family (Duxbury, Higgins & Thomas, 1996; Chesley, 2005). Also, WHI was found to be positively correlated with the using of work related technology after work, according to Boswell and Olson-Buchanan (2007).

Consequently, work related smartphone use, e-mail and instant messaging for work communication are expected to be normal, routine activities of many organizations. Therefore, the work use of smartphone makes employees possible to stay connected to job at any time and place. Hence, this can challenge life domains of work and family (Valcour & Hunter, 2005; Yun, Kettinger & Lee 2012). Research on smartphone use, is associated with; 1) pressure on employees to respond 2) the attention of users are interfered by incoming messages. Therefore, mobile devices are intruders to both work and home areas with a disturbing affect. The more people use these smarttoys; the more addicted they become and they justify the necessity of this engagement and eventually they detach from both the joy of and the responsibilities of home which reflects back to business in a unconstructive way (Derks and Bakker, 2014; Derks et. al. 2015; Jarvenpaa & Lang, 2005). So, H_2 is developed as:

H2. Smartphone use after work hours has a positive impact on WHI (work-home ınterference).

Besides this direct interactions, the mediating effect of recovery experiences between smartphone use and WHI is also investigated. The belief cannot be neglected that the higher number of employees' work related phone calls at home, the higher their WHI will be occurred (Sonnentag & Bayer, 2005). That makes them physically and mentally unable to detach from work related activities after working hours. So, job demands of employees affect their recovery experiences negatively (Yun, Kettrageer &Lee, 2012). Specifically, needs for recovery (detachment and relaxation) are important to protect employees' recovery status (e.g. well-being and social time) after demanding workdays. When people get full of work related demands and stay connected to their jobs, home-life will be overwhelmed. Finally, a high need for recovery will be needed (Demerouti et al., 2007). In addition, Binnewies and colleagues (2009) have argued that using smartphone may blur the boundaries between work–home domains. The association between staying connected to work and high stress level may lead to more exhaustion, poor recovery and fatigue. Since the work related calls are uncontrollable it is possible that smartphone use via low recovery experiences might effect on WHI (Siltaloppi et al., 2009). Therefore, we think that smartphone use, WHI and recovery are interrelated. In line with these findings, we argue that smartphone use increase WHI by the mediating effect of low recovery experience.

H3. Smartphone use after work hours has an impact on work to home interference via recovery experiences; smartphone use ruins recovery experiences so, work to home interference increase.

Theoratical model of the study is also summarized in Figure 1.



Figure 1. Theoratical Model of the Study

2. METHODOLOGY

Respondents and Data Collection

Empirical data were collected from employees of distinct companies from distinct industries using an online survey by convenience sampling method. The questionnaire consisted of four parts and each include one variable and demographics. Additionally, a brief introduction of objectives of the study, promising confidentiality and delivery of findings in case of request is stated in the front-page of questionnaire. All respondents held positions in private sector including managerial and non-managerial. All employees are using a smartphone for intention of business.

Two hundred twenty-three respondents filled out the surveys while fifty-one per cent were male, the average age was 34.22 years (std. dev. 7.80). Respondents whose spouse are working as well is 43.5%, 60% of all have bachelor degree and non-managerial position holders constitute 52% of the sample.

Measures

Recovery Experiences are measured with psychological detachment and relaxation dimensions of the REQ which is developed by Sonentag and Fritz (2007). After removing one item from each subscales due to lack of loading to factor, the scale exhibited sufficient composite reliability and validity (Composite Reliability: .70; AVE: .54). Sample items include "I forget about work." for psychological detachment dimension and "I do relaxing things." for relaxation dimension. A six-point Likert-type scale ranging from 1=Strongly Disagree to 5=strongly agree was utilized.

Work-Home Interference is measured with one sub-dimension of the SWING which is developed by Geurts, Taris, Kompier, Dikkers, Van Hooff and Kinnunen (2005). After omitting one item from analysis due to lack of factor loading the scale exhibited a high construct reliability and adequate validity (Construct Reliability: .88; AVE: .50). Sample items include "I do not have the energy to engage in leisure activities with my pouse/family/friends because of my job?" A four-point Likert-type scale ranging from 1=Never to 4=Always was utilized.

Smartphone Use Intensity is measured with a self-construed scale including four items which is developed by Derks and Bakker (2014). Sample items are: ''I feel obligated to reply to messages during evening hours." After removing one item due to lack of loading to factor the scale exhibited and sufficient construct reliability and construct validity (Construct Reliability: .81; AVE: .59). A six-point Likert-type scale ranging from 1=Strongly Disagree to 5=strongly agree was utilized.

All scales except in this study are used first time in Turkish context, so that translation of items to Turkish has been made by a committee comprised of organizational behavior Phd. students in trust of a professor in conformity with the standard back-translation technique (Brislin, 1970).

Data Analysis

In order to test research model which is exhibited in Figure 1, using AMOS 21, structural equation modelling is performed (Bollen, 1989; Arbuckle, 2012). To assess the fit, as suggested in the literature, these goodness-of-fit indices were used as offered in SEM (Kline, 1998; Joreskog and Sorbom, 1993) such as Chi-Square statistics divided by the degree of freedom (x2/df); goodness of fit index (GFI), Tucker-Lewis coefficient (TLI), comparative fit index (CFI), and root mean square error of approximation (RMSEA). In the literature x2/df ratio is recommended to be less than 5 and bigger than 1.5; the values of GFI, CFI and TLI are recommended to be greater than 0.90; RMSEA is recommended to be lower than 0.08.

3. FINDINGS & RESULTS

The means, standard deviations, and correlations belongs to variables are presented in Table 1. The bivariate correlations indicate that all variables are inter-correlated around low and middle levels.

Table 1. Means, standard deviations (s.d.) and correlations

		Mean	Std. dev.	1	2
1	Smartphone Use Intensity	2.96	1.065		
2	Recovery Experiences	2.73	.814	-.529**	
3	Work to Home Interference	1.82	.504	.419**	-.473**

n=223, two-tailed test:; **p<.01

Measurement Model

Before testing the hypotheses, reliability and construct validity scores were examined to in order to be sure if the research instrument is appropriate. The measurement model's internal consistency for reliability was tested using Fornell's composite reliability and construct validity was examined by convergent and discriminant validity (Fornell and Larcker, 1981; Chin, Gopal, & Salisbury, 1997; Kim, 2012). As subtypes of construct validity both convergent and discriminant validity measures work together. This measurement is not sufficient merely for construct validity (Chin, 1998). Item loadings and their associated t-values indicate convergent validity as well. All of the indicators must be greater than 0.50

(Wixom and Watson, 2001), indicating that convergent validity has been achieved. Because of a low t-value, standardized loadings, and average variance extracted (AVE) scores, the risk probability indicator was deleted and other constructs were reanalyzed. Table 2 shows factor loadings, t-values, Fornell's composite reliability scores, and AVE and indicates adequate internal consistency.

Table 2. Factor Loadings and Reliability Coefficients for Constructs

Construct and Indicators	Factor Loading	t-value	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
First-order					
Smartphone Use			0.802	0.810	0.590
Sp1	0.795				
Sp2	0.859	11.179			
Sp3	0.633	8.778			
Work – Home Interference			0.749	0.877	0.507
Int1	0.607				
Int2.	0.745	8.393			
Int3	0.623	7.363			
Int4	0.792	8.739			
Int5	0.701	8.040			
Int7	0.782	8.671			
Int8	0.713	8.142			
Psychological Detachment			0.924	0.928	0.811
Pd1	0.956				
Pd2	0.886	20.742			
Pd3	0.856	19.050			
Relaxation			0.777	0.793	0.565
R1	0.689				
R2	0.882	9.349			
R3	0.665	8.309			
Second-order					
Recovery Experiences			0.857	0.701	0.539
Relaxation	0.710	5.978			
Psychological Detachment	0.758				

Preliminary Analysis

Confirmatory factor analysis was conducted for testing of measurement model in order to assess convergent validity which tests if items load significantly onto the decent scales with which they are associated. The results of CFA showed an acceptable fit with the data (x2 of 158.817 on 99 degrees of freedom (p<.000); GFI: 0.917; CFI: 0.965; TLI:0.957; RMSEA:0.054, PCLOSE:0.309) were achieved. Item's standardized estimates ranged from 0.607 to 0.956. these preliminary results indicated that there is a relationship between each indicator variable and their respective variable were statistically significant (p<.01). Thus, convergent validity is provided (Hair, Anderson, Tatham, & Black, 1998).

Test of the Model

The structural model was assessed using standardized path coefficients, their significance level (t-statistic), and R2 estimates. Table 3 reports the results of the hypotheses tests with the exception of the H3 asserting a mediation effect. The R2s of recovery experiences and work to home interference are 0.51 and 0.38 respectively. This indicates that the exogenous variable of each construct explains more than the recommended value of 0.10 (Falk & Miller, 1992).

Table 3. Hypothesis Tests

Research Hypothesis	Path Coefficient	t-value	Results
H_1 Smartphone Use → Recovery Experiences	-.740	7.483	Supported
H_2 Smartphone Use → Work to Home Interference	.550	5.886	Supported

p <.001

Mediating Effect of Work to Home Interference

H3 predicts that recovery experiences mediates the relationship between work-related smartphone use and work to home interference. In order to investigate the mediation effect, first, all of the direct, indirect, and total effects between the variables are measured. Table 4 shows that the indirect effect of smartphone use intensity to work to home interference is 0.336. This could be an indicator of a mediating effect due to being more than direct effect. But further investigation is need to be done.

Table 4. Direct, Indirect, and Total Effects of Relationships

Path	Direct Effect	Indirect Effect	Total Effect
Smartphone Use Intensity → Work to Home Interference	.181	.336	.518
Smartphone Use Intensity → Recovery Experiences	-.711	-	-.711
Recovery Experiences → Work to Home Interference	-.473	-	-.473

Second, the analysis of Baron and Kenny's (1986) classic causal step approach is used to test the mediating effect. The results support H3 because the magnitude of the effect between smartphone use intensity and work to home interference in Step 4 is significant and the direct relationship has changed to non-significant relationship when controlling for the recovery experience, as indicated in Table 5. The beta coefficient for the direct path between smartphone use intensity and recovery experiences was significant in Step 1 with -0.666 ($p < 0.000$) and lose strength but not insignificant in Step 4 with -0.479 ($p > 0.05$). Consequently,

the findings of the mediation analysis support full mediating effect of recovery experiences between smartphone use intensity and work to home interference.

Table 5. Mediating Tests Results

Steps of mediating effect	Beta	t-value	p
Step 1 - Independent variable to outcome variable			
smartphone use intensity → work to home interference	0.550	5.886	<.001
Step 2 - Independent variable to mediator			
smartphone use intensity → recovery experiences	-0.740	-7.483	<.001
Step 3 - 4 - Independent variable and mediators to outcome variable			
smartphone use intensity → work to home interference	0.181	1.312	=.190
recovery experiences → work to home interference	-0.473	-2.862	=.004

4. DISCUSSION AND MANAGERIAL IMPLICATIONS

As our results indicate, the mean (average) scores of excessive use of smartphones after work hours(i.e. difficulty in preventing from checking and answering calls and e-mails and feeling obligated to do that) in Turkey are below the mean score levels of Europe and United States. Participants prefer to make some recovery activities to be able to psychologically detach them from work and prepare themselves for the coming work day on average. Meantime, the average scores of work to home interference is close to Europe and United States scores.

The findings of this research approved the negative impact of off-job time work-related smartphone use on recovery experiences and the mediating role of recovery experiences between smartphone use and work-home interference or conflict. In other words our theoretical model is empirically approved. The theoretical contribution of the study is to fill the gap in the literature about the impact of smartphone use after business hours on employee attitudes and outcomes and to open new perspectives to develop further research models especially for cross cultural studies. This research also has some important managerial implications as the previous discussion indicates.

Most of the participants who uses actively their smartphones after work hours indicates that they can't relax and psychologically detach from their work and this sabotage their work-home balance. They can't keep their work roles outside their homes by taking their business smartphones in to their homes. Most of the employees today are all the day (7 days /24 hours) accessible via their smartphones even at home. Some of them are excessively feel obligated and can't prevent themselves from actively checking and responding to e-mails at home. All of the work stress and pressure coming from work demands interfere with employee's private lives which makes a healthy recovery process nearly impossible. Smart phone use for business purposes after work hours also means that employees are sacrificing from their time which they are going to be together with their families and it brings a basis for role conflicts between work and family areas including time-based and strain based conflicts. They can't live a detachment from work, they can't fulfill the requirements of family roles properly, they can't participate to the planned social activities together with their family members and even worst they are present at home physically but are absent psychologically. All of this negative interactions further increases fatigue, aggressiveness, burnout and intention to quit.

This research results shows that, eventhough smartphone use after work hours may be considered as a technological advantage to be able to solve business affairs on time, without delay and as quick as possible and even sometimes it is considered and expected from some of the companies as usual, it may cause some negative consequences for individuals and in

the long run for organizations in terms of productivity. This has become such a serious concern in some countries. In Germany, for example, the Ministry of Labor started an information initiative to discuss the implications of employees' round-the-clock availability for their health and well-being. The minister was quoted as saying that strict rules need to be implemented for separating work and private life. (Binnewies, Sonnentag & Mojza, 2009)

It is fair to say that the business use of smartphones in after hours or free time has been a double sided sword. While it might give some freedom and practicalities for people to handle business issues, it comes with the risk of limiting freedom when one needs for him/herself and his/her friends, family etc. Some employees might prefer to have this technological gift and take it as something simplifying work and increasing their performance; some other might complain claiming smartphone use increases the pressure of work, as the employees are expected to be on-line in the long run and this exception or opportunity becomes the rule.

This or that way, business companies, managers and human resources specialists have to be aware of this truth and to take some precautions to diminish the negative results of smartphone use after work hours related to business matters. Within this context, it may be offered some precautions such as;

- To clearly define the border between work and family areas,
- To clearly state such demands (requirement of smartphone use after work hours for business affairs) in business contracts and to get the approval of both employees and companies (parties to the business contract),
- To establish a rewarding policy for the employee who brings work to home via smartphones (this has to be optional and voluntary)
- To provide some compensation opportunities to psychologically detach and relax for employees who has to use their smartphones after work hours (for example, sometimes they can take some breaks longer or may leave the company earlier)
- To develop and effectively apply some training programs for managers and employees like "time management", "employee empowerment" and "managerial competencies".

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