

Unlocking the Digital Equation: ICT Usage, Work-life Conflict & Moderating Role of Psychological Detachment in Shaping Life & Job Satisfaction

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This study explores the linking mechanisms and conditional processes underlying the relationship between ICT usage (using devices to connect to and complete office work during non-working hours), work-to-life conflict and overall satisfaction (life, job), and the moderating role of psychological detachment on the above. Data was collected from 201 Indian adults working full-time in ITES companies across India in a multi-phased manner. Data was analyzed using structural equation modeling (SEM). The findings indicate that ICT usage negatively impacts job satisfaction, mediated by work-to-life conflict. Furthermore, psychological detachment is a crucial moderator, influencing the relationship between ICT usage and work-to-life conflict, as well as the link with job satisfaction.

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Introduction

“Once a new technology rolls over you, if you are not part of the steam-roller, you are part of the road.” – *Stewart Brand*

In the contemporary landscape of dynamic technological advancement, the integration of Information and Communication Technology (ICT) within professional domains has ushered in a host of opportunities and challenges (Gonzales et al., 2019). The omnipresence of ICT tools, be it smartphones, tablets, internet, and emails (Ollier-Malaterre et al., 2019) has created an environment where the demarcation between work and non-work life has become increasingly indistinct (Derks et al., 2016; Ohly & Latour, 2014), wherein it has become common practice to check office emails at home or social media message from partner while dealing with client at office (Saternus et al., 2019). While the pressure to stay connected, be it with work or personal life, is perceived differently by different

people and is circumstantial to occupation, culture, workplace and home rule inclinations (Hellemans et al., 2019; Ollier-Malaterre et al., 2019), the stress created to remain constantly connected nevertheless heightens the potential for work-life conflict in all (Cho et al., 2020; Wang et al., 2019; Colbert et al., 2016). Usage of ICT tools, be it for work or non-work purposes, has significantly contributed towards blurred boundaries between work and non-work domains, though researchers remain divided in their role as a beneficiary or intrusive tool (Ollier-Malaterre et al., 2019; Saternus et al., 2019). In this context, it is also essential to understand how individuals navigate the demands of the multiple roles in a technology-saturated culture (Ollier-Malaterre et al., 2019).

In modern-day society, work-life conflict represents a pressing concern and is characterized by the difficulties individuals face in effectively segregating their professional responsibilities from their personal lives (Tennakoon, 2018). Research consistently shows that work-life conflict significantly impacts individuals' life satisfaction (Zhao et al., 2020; Yucel, 2017), and job satisfaction (Talukder, 2019). This challenge is exacerbated by the continuous accessibility and connectivity facilitated by ICT (Li & Lin, 2019), leading to diminished well-being and reduced job satisfaction and life contentment, including anxiety, heightened stress and burnout (Li & Lin, 2019). Recent research (meta-analysis by Baumeister et al., 2021) has explored the indirect effect of ICT usage on well-being through psychological ICT-related

demands and resources. In fact, Baumeister and colleagues (2021) have noted that a 'two-sided view' is warranted to decode the relationship between ICT device usage and its role on well-being (engagement, satisfaction, burnout) and that a merely direct exploration of the causal relationship may not be exhaustive enough.

Following the above, we have attempted to take a more comprehensive approach and identify the presence of a significant variable that might attenuate the impact of ICT-induced work-life conflict on overall satisfaction. In this context, we focus on psychological detachment as one such moderator. Psychological detachment is "an individual's sense of being away from the work situation" (Etzion et al., 1998: 579). Operating as a boundary management mechanism at the cognitive level, it is posited as a pivotal coping strategy capable of lessening the adverse effects of work-life conflict (Hamilton et al., 2021; Dettmers, 2017; Sonnentag & Fritz, 2015). It is conjectured that individuals proficient in the art of psychological detachment during leisure hours may experience a reduction in work-life conflict, thereby potentially enhancing their overall life satisfaction (Sonnentag et al., 2010). The fundamental inquiry of this research centers on the extent to which psychological detachment moderates the association between ICT usage, work-life conflict and overall satisfaction (life, job).

This study is juxtapositioned to examine in more depth how advancements in ICT impact multiple domains of adult

human beings, be it work and/ or non-work, in line with the works of Ollier-Malaterre and colleagues (2019), Hellemans and colleagues (2019), Roeding and colleagues (2019) and Tennakoon (2018), especially in the Indian context. Empirical evidence from non-western nations (India) can help researchers understand the cross-cultural differences in practices in technology-driven workplaces. This study aims to understand how using a lot of technology for work purposes affects how happy people are with their lives and jobs. It also looks into how taking breaks from work-related thoughts (psychological detachment) helps people deal with the challenges of using technology all the time. In a world characterized by the omnipresent influence of technology, it is imperative to unravel the intricate web of influences governing the relationship between ICT usage, work-life conflict, and individual satisfaction. It serves as a vital foundation for the development of strategies and can help design interventions aimed at enhancing the quality of life and job satisfaction within an increasingly technology-driven environment. Thus, this research seeks to advance our comprehension of these multifaceted relationships, which, in turn, can apprise the scheme of interventions and strategies conducive to mitigating the harmful consequences of ICT-induced work-life conflict while fostering overall satisfaction.

Theoretical Background

Drawing upon the Conservation of Resources (COR) theory (Hobfoll, 1989), the Transactional Model of Stress

and Coping (TMSC) (Lazarus & Folkman, 1987), and the Boundary theory (Ashforth et al., 2000), this study unveils the intricate linkages between ICT usage, work-to-life conflict (WLC), psychological detachment (PD), and employee's life satisfaction (LS) and job satisfaction (JS). In the context of COR theory (Hobfoll, 1989, 2002), ICT resources are viewed as both consumed and threatened in the digitally connected workplace. The constant utilization of technology, often consuming time and energy, can lead to resource depletion. According to the boundary theory, this draining of resources often leads to role confusion, stress, negative affect, and inter-role conflict (Ashforth et al., 2000). Work-to-life conflict, exacerbated by excessive ICT usage, serves as a resource-depleting mechanism, draining personal resources such as time, energy, and psychological well-being. This depletion aligns with COR theory's (Hobfoll, 1989, 2002) perspective that resource loss or the threat of resource loss is a source of strain and stress. Psychological detachment, conversely, plays the role of a resource preservation mechanism. Allowing individuals to disengage from work-related stressors during non-working hours provides a safeguard against resource loss, acting as a buffer to prevent the erosion of personal resources.

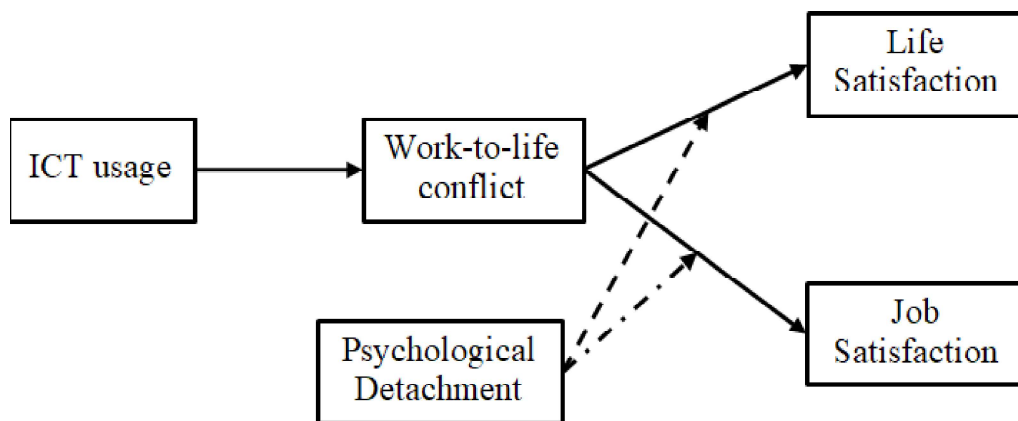
Resource loss or the threat of resource loss is a source of strain and stress.

The TMSC (Lazarus & Folkman, 1987) offers insights into the cognitive

appraisal and coping processes in response to these stressors. In our study, excessive ICT usage is considered a stressor, as individuals perceive the constant accessibility and work demands as intrusions on their personal lives and well-being. This perceived stressor results in the appraisal of work-to-life conflict as a challenge that threatens well-being. In response, psychological detachment emerges as a coping resource, allowing individuals to disengage from stressors arising out of addressing work-related concerns, at non-working hours. This resource serves as a mechanism through which individuals cope with the stress of

work-to-life conflict, mitigating perceived stress and its negative effects. The COR theory (Hobfoll, 1989; 2002) highlights the resource-related aspects of the link between ICT usage, work-to-life conflict, and psychological detachment, while the TMSC (Lazarus & Folkman, 1987) focuses on the cognitive appraisal and coping processes employed by individuals when faced with these stressors. Together, we took the help of these theoretical frameworks to provide a comprehensive understanding of how these factors interact to influence employee satisfaction. Fig. 1 illustrates the theoretical model.

Fig. 1 Theoretical Model



Proposed Hypotheses

ICT Usage & WLC: While increased ICT usage is proven to enhance flexibility, it also acts as an architect for blurring work-life boundaries (Kossek et al., 2006), which has adverse effects on well-being. It also leads to internet addiction (Hansen, 2002), implying a loss of behavioral control (Kim & Byrne, 2011). Due to changes in lifestyle, ac-

cessibility to ICT leads to its frequent usage, and workplaces also add to it as they provide easy access to the internet (Li & Lin, 2019) for fulfilling our work requirements. It is expected of the employees to carry over their pending assignments to home, creating anxiety, stress and even burnout owing to conflicting role demands (Li & Lin, 2019; Salanova et al., 2013). An individual has to shift mental gear from being a parent

to being an employee when they have to cater to office work (e.g., replying to an urgent email or phone call from a client in the midst of preparing dinner), which may lead to inter-role strain, thus creating work-to-life conflict (Cho et al., 2020; Tennakoon, 2018; McCloskey, 2018). Thus, catering to work demands through ICT usage creates a resource drain due to the blurring of boundaries, thus creating work-to-life conflict. Hence, drawing support from boundary theory (Ashforth et al., 2000) and the COR theory (Hobfoll 1989, 2002), we expect that continuous higher levels of ICT usage at home would be linked with greater heights of work-to-life conflict. Hence, it is hypothesized that:

H₁: ICT usage at home during non-working hours increases WLC.

WLC & LS: Researchers have steadily recognized the adverse effect of work-life conflict on an individual's life satisfaction (Bai et al., 2021; Zhao et al., 2020; Cazan et al., 2019; Yucel, 2017; meta-analysis of Allen et al., 2020). Further, the negative influence of work-life conflict on life satisfaction is frequently enhanced when the conflict is persistent and chronic rather than occasional or transient (Yucel & Fan, 2019). The COR theory (Hobfoll, 1989; 2002) also highlights how work-life conflict influences life satisfaction. Work-life conflict disrupts the balance of crucial resources, like time and energy, leading to diminished life satisfaction. Constantly juggling work and personal responsibilities leaves individuals drained, making it challenging to invest in satisfaction-promoting resources

in other areas. This resource depletion contributes to an overall sense of dissatisfaction. The constant dissonance created due to the inability to fulfill the demands of work and life further increases the stress levels, which further contributes to diminishing life satisfaction. Hence, it is hypothesized that:

H₂: WLC decreases LS.

WLC & JS: Work-life conflict is observed to be negatively related to job satisfaction (Adriano & Callaghan, 2020; Roeters & Craig, 2014; Rathi & Barath, 2013; meta-analysis of Allen et al., 2020). WLC refers to the adverse spillover effects where stressors from the work domain adversely impact their non-work (life) domain. The drain of resources and intensified stress destabilize an individual's job satisfaction (Talukder, 2019), in line with the COR theory (Hobfoll, 1989, 2002). Hence, it is hypothesized that:

H₃: WLC decreases JS.

The Mediating Role of WLC: As individuals increasingly engage with ICT, it leads to a heightened sense of work-to-life conflict. The constant connectivity and demands imposed by ICT may spill over into personal time, depleting resources and creating a challenging boundary between work and non-work domains. It is in line with the COR theory (Hobfoll, 1989; 2002). This persistent conflict is theorized to act as a mediating factor, amplifying the negative impact of ICT usage on both job satisfaction (Wright et al., 2014; Qu & Zhao, 2012) and life satisfaction (Qu &

Zhao, 2012). Hence, it is hypothesized that:

H₄: WLC mediates between ICT usage and LS.

H₅: WLC mediates between ICT usage and JS.

Moderating Role of PD: Psychological detachment is an important recovery process. It operates as a boundary management mechanism at the cognitive level and serves as a pivotal coping strategy capable of reducing the harmful effects of work-life conflict (Sonnetag et al., 2010; Sonnetag and Fritz, 2015). Individuals proficient in the art of detaching psychologically during leisure hours may experience a reduction in work-life conflict, as they can maintain the boundaries between role boundaries, thereby potentially enhancing their overall life satisfaction (Sonnetag et al., 2010). As per the COR theory (Hobfoll, 1989, 2002), psychological detachment can be considered a strategy, a coping resource, through which individuals try to conserve resources that are spent doing intense and extended work. Additionally, within the framework of the TMSC (Lazarus Folkman, 1987), it serves as a mechanism through which individuals can effectively cope with the stress induced by work-to-life conflict. For individuals who

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are able to detach from their work role psychologically, work-to-life conflict experiences due to ICT usage will be less intense, as it acts as a buffer in managing stress. Additionally, when individuals are able to disconnect from work-related stressors mentally, they are expected to experience less disruption occurring due to work-life conflict on their overall satisfaction with life and job (Park & Fritz, 2015; Hobfoll, 2002). Hence, it is expected that:

H₆: Psychological detachment acts as a moderator, such that it –

H_{6a}: decreases the strength of the relationship between ICT usage and WLC.

H_{6b}: weakens the negative effect of WLC on LS.

H_{6c}: weakens the negative effect of LWC on JS.

Samples & Procedures

We studied the indirect impact of ICT usage on life satisfaction and job satisfaction through WLC. We also explored psychological detachment as a moderator, through multi-phased data collection. We maintained a time gap of 30 days between the measurement occurrences. Full-time employees working at several ITES firms in India participated in our study. We reached out to the participants (around 40 in number) who had come for a short-term course in an institute, and through them, other responses were obtained. We specifically chose the sector for multiple reasons. Firstly, it helped as there was relative uniformity of roles (we

felt it was essential to avoid in-built biases arising out of different domain/role specialties). Secondly, we aimed to obtain data from a sector wherein ICT usage is quite exhaustive, and ITES suited our construct requirements. Thirdly, the ITES sector offers a diverse workforce and a high employee base, which enabled us to obtain enough responses without overlap while at the same time maintaining the homogeneity of work roles. An online form created through Google Form was floated and distributed among the participants, and they were, in turn, requested to share the survey with their colleagues. To avoid multi-collinearity issues, we ensured that no respondents had any direct reporting relationship with another. We especially targeted respondents from those employees belonging to entry-/ low- and mid-managerial ranks.

The data collection process was spread evenly over three months. At the onset, the respondents were requested for their inclination to participate, assuring them of complete anonymity. In total, 201 completed responses were received, in line with the minimum requirement of 200 responses / 10 per item (Kline, 2011). There were minimal drop-outs (<3%). We also conducted selectivity analyses, and the results confirmed that there were no significant differences with respect to socio-demographic variables. As all data were self-reported, we checked for common method bias through Harman's single-factor test (Podsakoff et al., 2003). The resulting variance was 28.32%, which lies within the desired limits of being less than 50%, ruling out common method bias. The

majority were female (88.6%), aged around 43.7 years (SD 10.33), residing in a nuclear family (72.6%), and having at least one child at home staying with them.

Measures

We used items from pre-existing, well-established scales, validated across cultures. The entire survey was conducted in English. We used a five-point Likert scale to capture the responses (1 = strongly disagree, to 5 = strongly agree), except for those mentioned below.

- ICT usage. Two items from Bosswell and Olson-Buchanan's study (2007). The first one was "How often do you use a smartphone and PC/ laptop for work-related goals outside work hours?". The second was "How many minutes per day do you spend on average on work-related ICT use outside normal working hours?" (Measured as 1 being 0-minute, till, 5 being > 60 minutes) (Cronbach alpha (α) = 0.738). (Schreier, Margrit. (2012)
- Psychological detachment. Four items from Sonnentag and Fritz's (2015) Recovery Experience Questionnaire. One of the questions used was, "I forget about my work when I am home" (Cronbach alpha (α) = 0.794).
- Work-to-life conflict. Five items from Fisher et al.'s (2009) Work-Nonwork Enrichment and Conflict Scale. One of the questions used was, "My job

makes it difficult to maintain the kind of personal life I would like” (Cronbach alpha (α) = 0.871).

- Life satisfaction. Five items from Diener et al.’s (1985) Satisfaction with Life Scale. One of the questions used was “The conditions of my life are excellent” (Cronbach α = 0.854).
- Job satisfaction. Four items from Thompson & Phua’s (2012) Brief Index of Job Satisfaction Measure. One of the questions used was, “I feel fairly well satisfied with my job” (Cronbach alpha (α) = 0.860).

Control variables: Demographics play an important role in studies exploring work and life interface (Lapierre et al., 2018). Hence, following their recommendation, we controlled for age, gender, family type, and number of child/children at home.

Analytic Strategies: We tested the hypotheses by conducting path analysis (SEM). The tools used were SPSS (v.26) and AMOS (v.23). We adopted the SEM approach as it permits concurrent approximation of multiple indirect paths and runs model fit indices (James et al., 2006). Following Anderson and Gerbing (1988), we tested the measurement model and then did a comparison of the model fits with alternative models. Next, we calculated the estimates for each path of our hypothesized model.

Table I presents the means, standard deviations, reliability coefficients and correlations.

Table 1 Means, Standard Deviations, and Correlation Coefficients

S.No.	Variables	Mean	SD	1	2	3	4	5	6	7	8	9
1	Gender	1.890	0.319									
2	Age	43.730	10.328	.062								
3	Family type	1.270	0.447	-.060	.012							
4	No of children	1.090	0.310	-.092	.145*	.101						
5	ICT	3.540	0.983	.062	.144*	-.167*	.086					
6	WLC	3.323	0.922	.097	-.101	-.095	.015	.028				
7	PD	3.296	0.917	.159*	-.099	-.097	.037	-.017	.605**			
8	JS	2.940	0.992	-.069	.018	.398**	-.038	-.513**	-.171*	.205**		
9	LS	3.666	0.800	.174*	-.089	.045	-.017	-.043	.147*	.291**	-.040	
												(0.854)
												(0.860)
												(0.794)
												(0.871)

Note. N = 201, **p<0.01 (2-tailed), *p<0.05 level (2-tailed) Values (in bracket) on the diagonal bold italics show Cronbach alphas (α) of each scale

Confirmatory Factor Analysis

We evaluated the measurement model with five latent variables: ICT usage at home during non-work hours (ICT), work-to-life conflict (WLC), life satisfaction (LS), job satisfaction (JS), and psychological detachment (PD). The results established reliability, construct validity and discriminant validity.

We also checked the values of heterotrait-monotrait ratio of correlations (HTMT) (Henseler et al., 2015). The HTMT values for all were less than 0.90 (0.53 being the utmost); hence discriminant validity was established.

Hypotheses Testing

To check the model fit, Chi-square, degrees of freedom, root mean square error estimate, standardized root mean squared residual, normed fit index, comparative fit index and Tucker-Lewis index values were examined. All of them were found to be significant, within the prescribed limits of $\chi^2/df < 3$, RMSEA < 0.08 , SRMR < 0.08 and NFI, CFI, TLI > 0.90 (Awang, 2012). Table 2 given above lists the fit indices for both models. The five-factor model depicts the best fit, as envisaged.

Table 2 Model Fit Indices for Measurement Model and Structural Models

Models	χ^2	df	RMSEA	NFI	CFI	TLI	χ^2 / df
Measurement Model	203.101	142	0.046	0.894	0.965	0.958	1.430
Structural Model (5-factor)	371.131	236	0.054	0.883	0.953	0.940	1.570
SM (4-factor)	472.909	147	0.105	0.754	0.814	0.783	3.217
SM (3-factor)	881.535	150	0.156	0.541	0.582	0.524	5.877
SM (2-factor)	1006.993	152	0.168	0.476	0.512	0.451	6.625

Source: Author's findings

Overall, empirical data supported the hypothesized model. Fig. 2 represents the observed model. The direct pathways were all supported (hypotheses 1, 2 and 3). H_1 proposed that ICT usage positively influences WLC ($\beta = 0.226$, $se = 0.056$, $p < .001$). H_2 proposed that WLC negatively influences LS ($\beta = -0.100$, $se = 0.058$, $p = .008$). H_3 proposed that WLC negatively influences JS ($\beta = -0.676$, $se = 0.083$, $p < .001$).

To check for the mediation effect of WLC (H_4 & H_5), the bootstrapping method (sample size 5000, bias confi-

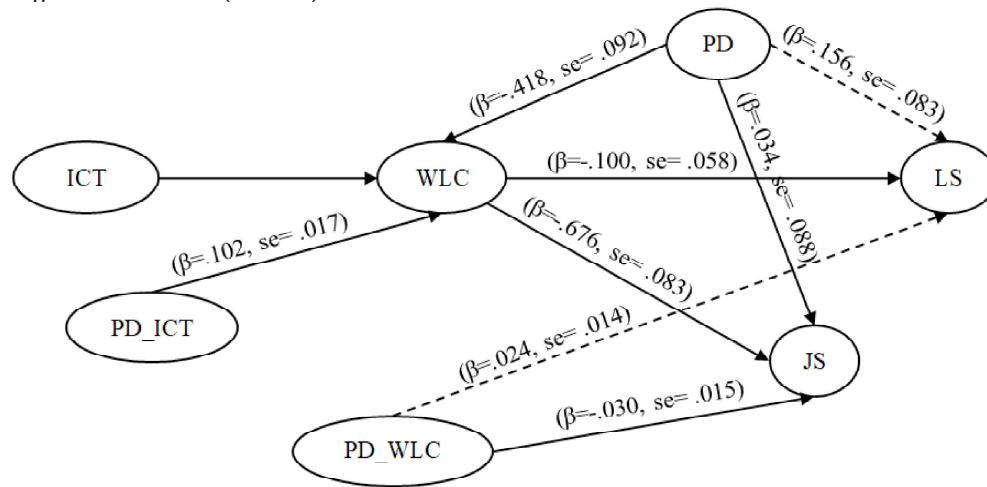
dence interval 95) was used. H_3 proposed that WLC mediates between ICT and LS, but this was not supported ($\beta = 0.023$, LCI = -0.064, UCI = 0.001, $p = .061$). H_5 proposed that WLC mediates between ICT and JS ($\beta = -0.152$, LCI = -0.261, UCI = -0.054, $p = .002$); this was supported.

In H_6 , we checked for the moderation effect of psychological detachment (PD). H_{6a} proposed that PD moderated between ICT and WLC; this was sustained, as both the direct pathway (PD-WLC: $\beta = -0.418$, $se = 0.092$, $p < .001$) and

indirect pathway (PDICT-WLC: $\beta = 0.102, se = 0.017, p < .001$) were observed to be significant. H_{6b} proposed that PD moderated between WLC and LS, this was not supported ((PD-LS: $\hat{a} = 0.156, se = 0.083, p = 0.062$; PDWLC-LS: $\beta = 0.024, se = 0.014, p = 0.088$)). H_{6c} pro-

posed that PD moderates between WLC and JS; this was sustained, as both the direct pathway (PD-JS: $\beta = 0.034, se = 0.088, p = 0.007$) and indirect pathway (PDWLC-JS: $\hat{a} = -0.030, se = 0.015, p = 0.040$) were observed to be significant. Fig. 2 portrays the SEM results.

Fig. 2 SEM Results (n = 201)



Source: Author's findings

Fig. 3 depicts the moderation results. It was observed that PD indeed weakened the relationship between (a) ICT usage and WLC, and (b) WLC and JS. To elaborate, for respondents with high psychological detachment, the impact of low vs. high ICT usage on work-to-life conflict is less pronounced than that for respondents with low psychological detachment. Additionally, for respondents with high psychological detachment, the impact of work-to-life conflict on job satisfaction is less pronounced than that for respondents with low psychological detachment.

With respect to the control variables, respondents who lived in joint family re-

Respondents who lived in joint family reported more work-to-life conflict (p = 0.002), as well as higher job satisfaction (p < .001).

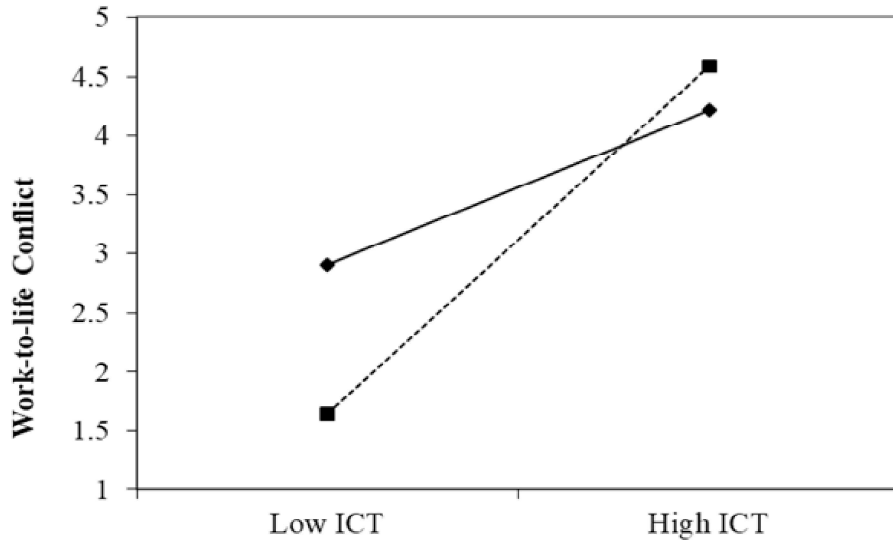
ported more work-to-life conflict (p = 0.002), as well as higher job satisfaction (p < .001). Neither age, gender, nor the number of children were observed to be of any statistical significance to any of the constructs on the hypothesized model.

Theoretical Implications

The results of our study carry noteworthy academic implications for the fields of occupational psychology, stress

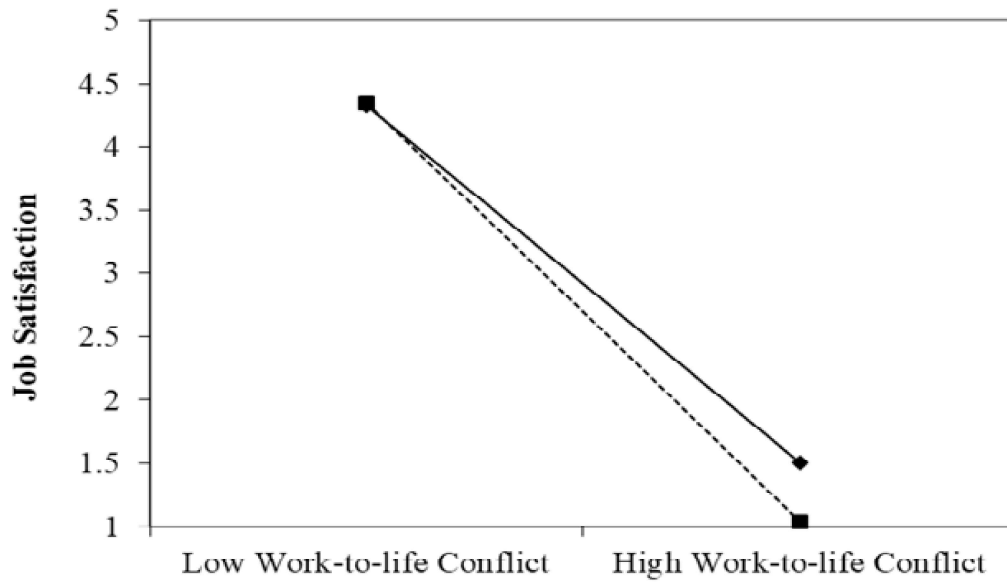
Fig. 3 Moderation Results

- ICT usage to Work-to-life Conflict (WLC) moderated by Psychological Detachment (PD)



Source: Author's findings

- Work-to-life Conflict (WLC) to Job Satisfaction (JS) moderated by Psychological Detachment (PD)



Source: Author's findings

research, and organizational behavior. First and foremost, this research enriches the COR theory by highlighting the dynamic role of psychological detachment in managing ICT-induced work-to-life conflict. It underscores the importance of psychological detachment as a crucial mechanism for resource preservation, buffering against resource depletion resulting from extensive ICT usage. This contribution deepens our understanding of how individuals actively manage and conserve their personal resources in the digital age, providing a nuanced perspective on the interplay between technology, resource dynamics, and employee well-being.

Furthermore, the application of the TMSC in the context of ICT-related work-to-life conflict is a noteworthy theoretical development. This research accentuates how individuals appraise the stressors introduced by the constant presence of technology in their lives and identifies psychological detachment as a coping resource employed to mitigate the perceived stress linked with work-to-life conflict. This application extends the model's relevance to contemporary workplace challenges, emphasizing the significance of cognitive appraisal and coping strategies in navigating the digital work environment.

The study also underscores the theoretical link between stress resulting from excessive ICT usage and work-to-life conflict and its impact on employee well-being. This finding aligns with the central principles of the COR theory and underscores the pivotal role of resource

preservation in enhancing employee well-being. It accentuates the significance of resource management and suggests that interventions aimed at preserving personal resources can potentially ameliorate the negative consequences of technology-induced work-to-life conflict on employee well-being.

Interventions aimed at preserving personal resources can potentially ameliorate the negative consequences of technology-induced work-to-life conflict on employee well-being.

Moreover, this research unravels the intricate interplay between ICT usage, work-to-life conflict, psychological detachment, and employee well-being. It emphasizes that while technology usage can erode well-being through increased work-to-life conflict, psychological detachment can act as a protective factor by mitigating these negative effects. This complexity underscores the need for a comprehensive approach to understanding the implications of technology in the workplace, acknowledging the significance of both stressors and coping mechanisms in research.

Finally, the implications of this study extend to the development of interventions and support mechanisms in organizations. The findings underscore the potential benefits of promoting psychological detachment as a coping strategy to mitigate the adverse consequences of ICT-induced work-to-life conflict. These interventions can perform a crucial role

in augmenting employee well-being and job satisfaction in the digital workplace. In sum, our research provides a valuable framework for future investigations and develop interventions aimed at improving the well-being of individuals in a technology-driven work environment.

Practical Implications

The study findings have significant managerial consequences for organizations aiming to effectively address the trials and prospects of integrating Information and Communication Technology (ICT) into the workplace. These implications can guide the development of strategies and policies that prioritize employee well-being, satisfaction, and productivity. Firstly, managers can be crucial in fostering psychological detachment among their teams. This can be achieved by cultivating a workplace culture that values boundaries and discourages after-hours work-related communication. Promoting leisure activities and time away from digital screens can also enhance psychological detachment. Secondly, organizations should consider implementing clear policies and guidelines regarding ICT use outside of working hours. Setting explicit expectations and boundaries for after-hours communication can effectively mitigate work-to-life conflict. Leading by example, managers can demonstrate responsible ICT use during non-working hours and respect employees' time off. Thirdly, it is imperative for managers to be aware of the potential resource depletion that arises from excessive ICT usage and work-to-life conflict. Providing resources and support for employees, such as training in time

Equipping employees with coping strategies to address work-to-life conflict is vital.

management and stress management, can be instrumental. Furthermore, flexible work arrangements and telecommuting opportunities can help employees effectively balance their professional and personal lives. Fourthly, equipping employees with coping strategies to address work-to-life conflict is vital. Managers can facilitate training and provide resources on stress management, time management, and the importance of taking breaks. An open-door policy for addressing work-life balance issues can create a supportive and inclusive workplace. Finally, providing training on efficient technology use is recommended. Training can encompass using productivity tools, setting boundaries for notifications, and managing email overload to enhance employees' ability to manage their workload effectively.

Limitations & Scope for Future Research

The primary limitation of the study stems from its design. To remove the limitations of a cross-sectional study, we conducted a time-lagged (multi-phased) study design. However, future research should consider adopting true longitudinal designs to provide a more robust understanding of the causal relationships among ICT usage, work-to-life conflict, and psychological detachment. Another limitation concerns the reliance on self-report data. Although we conducted checks to prove that biases do not exist

in our dataset, incorporating more objective measures of ICT use, such as screen time tracking or physiological indicators, can enhance the reliability and validity of the results. Future studies should employ multiple data sources, such as supervisor assessments and organizational records, to provide a more comprehensive perspective. The current study's sample is specific to certain demographics, industries, and organizational contexts. The majority of the respondents from whom we gathered data were females (89%), and we believe it may have been quite possible that the results reflect this gendered skewness. Consequently, the generality of the findings to broader populations and diverse settings may be limited. Future studies should aim to diversify the sample to improve the external validity of the results and consider various work environments and demographics. Additionally, future studies ought also try to emulate more balanced respondent profiles (gender) and do a comparative analysis to highlight gender differences, if any.

The development and assessment of interventions to ease the adverse effects of excessive ICT use on work-life balance are crucial. Research can focus on the design and evaluation of such interventions, which may include training programs, digital well-being tools, or organizational policies aimed at fostering psychological detachment. Cultural factors also play a significant role in modeling attitudes and norms related to technology use and work-life balance. Hence, future studies should inspect the impact of culture on these relationships, contributing to a better under-

standing of cross-cultural variations. Organizational policies and practices also warrant attention. Research can assess the role of these policies in influencing the relationships between ICT use, work-to-life conflict, and psychological detachment, offering insights into how organizations can create supportive work environments. The proliferation of technology calls for research into technology-based solutions that facilitate psychological detachment, such as mobile applications or digital tools. Investigating the efficacy of these solutions can provide practical insights for employees and organizations. Sector-specific research, focusing on the particular demands and challenges of specific industries, can yield valuable insights. Some sectors may be more susceptible to ICT-related work-to-life conflict, necessitating sector-specific interventions. Finally, comparative studies across countries or regions can illuminate cultural and contextual variations in the relationships explored in this study. Such research can inform global best practices for managing ICT-induced work-to-life conflict.

Acknowledgment

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References

- Adriano, J., & Callaghan, C.W. (2020), "Work-life Balance, Job Satisfaction and Retention: Turnover Intentions of Professionals in Part-time Study", *South African Journal*

- of Economic and Management Sciences*, 23 (1): 1-12.
- Allen, T.D., French, K.A., Dumani, S., & Shockley, K.M. (2020), "A Cross-national Meta-analytic Examination of Predictors and Outcomes Associated with Work-family Conflict", *Journal of Applied Psychology*, 105 (6): 539-76.
- Anderson, J.C., & Gerbing, D.W. (1988), "Structural Equation Modeling in Practice: A Review and Recommended Two-step Approach", *Psychological Bulletin*, 103 (3): 411-23.
- Ashforth, B. E., Kreiner, G. E., & Fugate, M. (2000), "All in a Day's Work: Boundaries and Micro Role Transitions", *Academy of Management Review*, 25 (3): 472-91.
- Awang, Z. (2012), *Research Methodology and Data Analysis* (second edition), UiTM Press.
- Bai, B., Gopalan, N., Beutell, N., & Ren, F. (2021), "Impact of Absolute and Relative Commute Time on Work-family Conflict: Work Schedule Control, Child Care Hours, and Life Satisfaction", *Journal of Family and Economic Issues*, 42: 586-600
- Baumeister, V. M., Kuen, L. P., Bruckes, M., & Schewe, G. (2021), "The Relationship of Work-Related ICT Use With Well-being, Incorporating the Role of Resources and Demands: A Meta-Analysis", *Sage Open*, 11, 4.
- Boswell, W.R., & Olson-Buchanan, J.B. (2007), "The Use of Communication Technologies After Hours: The Role of Work Attitudes and Work-Life Conflict", *Journal of Management*, 33 (4): 592-610.
- Cazan, A. M., Trușă, C., & Pavalache-Ilie, M. (2019), "The Work-Life Conflict and Satisfaction with Life: Correlates and the Mediating Role of the Work-Family Conflict", *Romanian Journal of Psychology*, 21 (1): 3-10.
- Cho, S., Kim, S., Chin, S.W., & Ahmad, U. (2020), "Daily Effects of Continuous ICT Demands on Work-family Conflict: Negative Spillover and Role Conflict", *Stress & Health*, 36 (4): 533-45.
- Colbert, A., Yee, N., & George, G. (2016), "The Digital Workforce and the Workplace of the Future", *Academy of Management Journal*, 59 (3): 731-39.
- Derks, D., Bakker, A.B., Peters, P., & van Wingerden, P. (2016), "Work-related Smartphone Use, Work-family Conflict and Family Role Performance: The Role of Segmentation Preference", *Human Relations*, 69 (5): 1045-68.
- Dettmers, J. (2017), "How Extended Work Availability Affects Well-being: The Mediating Roles of Psychological Detachment and Work-family-conflict", *Work and Stress*, 31 (1): 1-41.
- Diener E., Emmons, R.A., Larsen, R.J., & Griffin, S. (1985), "The Satisfaction With Life Scale", *Journal of Personality Assessment*, 49 (1): 71-75.
- Etzion, O. (1998), *Temporal Databases: Research and Practice* (Vol. 1399), Springer Science & Business Media
- Fisher, G.G., Bulger, C.A., & Smith, C.S. (2009), "Beyond Work and Family: A Measure of Work/Nonwork Interference and Enhancement", *Journal of Occupational Health Psychology*, 14 (4): 441-56.
- Gonzalez, R., Gasco, J., & Llopis, J. (2019), "ICTs in Hotel Management: a Research review", *International Journal of Contemporary Hospitality Management*, 31 (9): 3583-3609.
- Hamilton, D., McKechnie, J., Edgerton, E., & Wilson, C. (2021), "Immersive Virtual Reality as a Pedagogical Tool in Education: A Systematic Literature Review of Quantitative Learning Outcomes and Experimental Design", *Journal of Computers in Education*, 8 (1): 1-32.
- Hansen, S. (2002), "Excessive Internet Usage or 'Internet Addiction'? The Implications of

- Diagnostic Categories for Student Users”, *Journal of Computer Assisted Learning*, 18: 232-36.
- Hellemans C., Flandrin P., van de Leemput C. (2019), “ICT Use as a Mediator Between Job Demands and Work-life Balance Satisfaction”, Paper presented at the HCI in Business, Government and Organizations. Information Systems and Analytics, Cham.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015), “A New Criterion for Assessing Discriminant Validity in Variance-based Structural Equation Modelling”, *Journal of the Academy of Marketing Science*, 43: 115-35.
- Hobfoll, S.E., (1989), “Conservation of Resources”, *American Psychologist*, 44 (3): 513-24.
- Hobfoll, S.E. (2002), “Social and Psychological Resources and Adaptation”, *Review of General Psychology*, 6 (4): 307-24.
- James, L.R., Mulaik, S.A., & Brett, J.M. (2006), “A Tale of Two Methods”, *Organizational Research Methods*, 9 (2): 233-44.
- Kim, S.J., & Byrne, S. (2011), “Conceptualising Personal Web Usage in Work Contexts: A Preliminary Framework”, *Computers in Human Behavior*, 27: 2271-83.
- Kline, R.B. (2011), “Convergence of Structural Equation Modeling and Multilevel Modeling”, in M. Williams & W. P. Vogt (Eds.), *The SAGE Handbook of Innovation in Social Research Methods*, London, Sage.
- Lapierre, L.M., Li, Y., Kwan, H.K., Greenhaus, J., Drenzo, M. & Shao, P. (2018), “A Meta-Analysis of the Antecedents of Work-Family Enrichment”, *Journal of Organizational Behavior*, 39: 385-401.
- Lazarus, R.S., & Folkman, S. (1987), “Transactional Theory and Research on Emotions and Coping”, *European Journal of Personality*, 1 (3): 141-69.
- Li, L., & Lin, T.T.C. (2019), “Smartphones at Work: A Qualitative Exploration of Psychological Antecedents and Impacts of Work-related Smartphone Dependency”, *International Journal of Qualitative Methods*, 18: 1-12.
- McCloskey, D.W. (2018), “An Examination of the Boundary Between Work and Home for Knowledge Workers”, *International Journal of Human Capital and Information Technology Professionals*, 9 (3): 25-41.
- Ohly, S., & Latour, A. (2014), “Use of Smartphones for Work and Wellbeing in the Evening: The Role of Autonomous and Controlled Motivation”, *Journal of Personnel Psychology*, 13:174-83.
- Ollier-Malaterre A., Jacobs J. A., Rothbard N. P. (2019), “Technology, Work, and Family: Digital Cultural Capital and Boundary Management”, *Annual Review of Sociology*, 45 (1): 425-47.
- Park, Y., & Fritz, C. (2015), “Spousal Recovery Support, Recovery Experiences, and Life Satisfaction Crossover Among Dual – career: Couples”, *Journal of Applied Psychology*, 100 (2): 557-66.
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y., & Podsakoff, N.P. (2003), “Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies”, *Journal of Applied Psychology*, 88 (5): 879-903.
- Rathi, N., & Barath, M. (2013), “Work family Conflict and Job and Family Satisfaction: Moderating Effect of Social Support Among Police Personnel”, *Equality, Diversity and Inclusion: An International Journal*, 32 (4): 438-54.
- Roeding K., Weigel A., Jahn K., Niehaves B. (2019), “Individualized design: The Role of Individual Boundary Preferences on Technology Acceptance and Work-life Conflict”, Paper presented at the 23rd Pacific Asia Conference on Information Systems 2019, Xi’an, China.
- Roeters, A., & Craig, L. (2014), “Part-time Work, Women’s Work-life Conflict, and Job Satisfaction: A Cross-national Comparison of

- Australia, the Netherlands, Germany, Sweden, and the United Kingdom”, *International Journal of Comparative Sociology*, 55 (3): 185-203.
- Salanova, M., Llorens, S., & Cifre, E. (2013), “The Dark Side of Technologies: Technostress Among Users of Information and Communication Technologies”, *International Journal of Psychology*, 48 (3): 422-36.
- Saternus, Z., Staab, K., & Hinz, O. (2019), “Challenges for a Smart Availability Assistant – Availability Preferences”, Paper presented at the 25th American Conference on Information Systems, Cancun, 2019.
- 2007), “The Recovery Experience Questionnaire: Development and Validation of a Measure for Assessing Recuperation and Unwinding from Work”, *Journal of Occupational Health Psychology*, 12 (3): 204-21.
- Sonnentag, S., & Fritz, C. (2015), “Recovery from Job Stress: The Stressor detachment Model as an Integrative Framework”, *Journal of Organizational Behavior*, 36 (S1): S72-S103.
- Sonnentag, S., Binnewies, C., & Mojza, E.J. (2010), “Staying Well and Engaged When demands Are High: The Pole of psychological Detachment”, *Journal of Applied Psychology*, 95 (5) :965- 976.
- Schreier, Margrit. (2012), Qualitative Content Analysis in Practice, Jacobs University Bremen.10.4135/9781529682571.
- Talukder, A.M.H. (2019), “Supervisor Support and Organizational Commitment: The Role of Work-family Conflict, Job Satisfaction, and Work-life Balance”, *Journal of Employment Counseling*, 56 (3): 98-116.
- Tennakoon, U.S. (2018), “Crossing the Work/Life Boundary with ICT: Moderating Effect of ICT Perception on the Relationship between Cross-domain ICT Use and Work/Life Conflict”, *South Asian Journal of Human Resources Management*, 5 (2): 194-215.
- Thompson, E.R., & Phua, F.T. (2012), “A Brief Index of Affective Job Satisfaction”, *Group and Organization Management*, 37 (3): 275-307.
- Wang, X., Gao, L. & Lin, Z. (2019), “Help or Harm? The Effects of ICTs Usage on Work-life Balance”, *Journal of Managerial Psychology*, 34 (8): 533-45.
- Yucel, D. (2017), “Work-family Balance and Marital Satisfaction: the Mediating Effects of Mental and Physical Health”, *Society and Mental Health*, 7 (3): 175-95.
- Yucel, D., & Fan, W. (2019), “Work-family Conflict and Well-being Among German Couples: A Longitudinal and Dyadic Approach”, *Journal of Health and Social Behavior*, 60 (3): 377-95.
- Zhao, X., Wang, J., Law, R., & Fan, X. (2020), “A Meta-analytic Model on the Role of organizational Support in Work-family Conflict and Employee Satisfaction”, *International Journal of Contemporary Hospitality Management*, 32 (12): 3767-86.