

When Work Follows You Home: How Relationship Satisfaction Moderates the Link between After-Hours Smartphone Use and Work-Life Conflict

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Abstract

This empirical investigation analyzes the extent to which personal relationship satisfaction serves as a moderating variable in the connection between work-related smartphone utilization during non-working hours and the resultant work-life conflict. The data were obtained via an online survey targeting 109 Malaysian administrative and diplomatic officials situated in Sarawak. The findings indicate a statistically significant positive correlation between work-related smartphone usage after hours and work-life conflict, with excessive professional smartphone engagement outside of standard working periods being associated with an increase in work-life conflict. Furthermore, moderation analysis elucidates that personal relationship satisfaction plays a crucial role in diminishing the detrimental effects of after-hours work-related smartphone use on work-life conflict. These results imply that organizations ought to foster supportive environments that facilitate employees in delineating clear boundaries between their occupational and personal spheres. The study concludes by offering suggestions for prospective research trajectories within this domain.

Keywords: Smartphone, Exhaustion, Burnout, Personal Relationship, Work-Life Conflict

Introduction

The Sarawak state government has positioned digital transformation as a cornerstone of its economic development agenda through the Post COVID-19 Development Strategy 2030 (PCDS 2030). This comprehensive strategic framework emphasizes establishing a digital-ready community by enhancing digital connectivity and promoting widespread digital participation across all sectors. The successful realization of PCDS 2030's objectives relies heavily on civil servants, who serve as the backbone of policy implementation and service delivery transformation. Civil servants play pivotal roles in actualizing PCDS 2030's vision through four critical functions. First, they are responsible for policy implementation, translating strategic plans into actionable programs and services that directly impact citizens. Second, they drive service delivery enhancement, working toward the ambitious goal of full digitalization of all

1,106 state services by 2030 to improve efficiency and accessibility. Third, they facilitate community engagement by serving as vital liaisons between the government and the public, ensuring inclusivity and responsiveness in service provision. Finally, they oversee monitoring and evaluation processes, tracking progress through Key Performance Indicators (KPIs) and maintaining accountability standards. State leaders have explicitly acknowledged that the commitment and adaptability of the civil service are crucial for the successful implementation of PCDS 2030.

Given this context, understanding how digitalization affects the very workforce tasked with delivering it becomes not merely academic, but operationally critical. If civil servants experience sustained work-life conflict as a result of the digital demands placed upon them, the strategic objectives of the initiative itself may be jeopardized. An investigation among Sarawak's civil servants is therefore essential to understand how digitalization and emerging technologies are reshaping workplace interactions and personal lives. This examination becomes particularly relevant as leaders, managers, and employees in government sectors are expected to remain constantly connected to problem-solving initiatives and creative ideation processes that leverage technology to accelerate Sarawak's economic growth. Failure to account for the human costs of this connectivity risks undermining the very workforce upon which PCDS 2030 depends.

The proliferation of technological devices, particularly smartphones, has fundamentally transformed work practices in today's increasingly digital organizations. For many employees, the instant and continuous connectivity enabled by smartphones enhances work efficiency and facilitates non-standard work schedules that extend into evenings and weekends (Derks & Bakker, 2014; Ghislieri et al., 2017; Sarker et al., 2021). While the increased use of smartphones for work purposes during off-hours has become socially acceptable behavior, this trend carries potential negative consequences for employee well-being. This tension is particularly pronounced in public service contexts, where the obligation to support national development goals may intensify expectations of availability, yet where workforce sustainability remains equally vital to long-term policy success.

The expectation of constant availability and immediate responsiveness from supervisors, colleagues, and clients creates significant challenges for employees attempting to disconnect during personal time. This persistent connectivity, combined with repetitive work pressure and increased workloads, can foster work-life conflict. Critically, research indicates that employees experiencing prolonged work-life conflict eventually lose interest in making positive contributions to their jobs, undermining both individual performance and organizational effectiveness (Bakker & de Vries, 2021; Ninaus, Diehl, & Terlutter, 2021; Wilkinson & Haar, 2023). For a government actively pursuing full digitalization of 1,106 state services, the sustained well-being and engagement of its civil servants is therefore not a peripheral concern but a prerequisite for achieving PCDS 2030's objectives.

Beyond work-related smartphone use during off-hours, interpersonal interactions and relationships represent equally important factors influencing employees' work-life balance. Therése and Reinholdsson (2016) found that approximately 80% of waking hours involve interactions with others, including partners, friends, relatives, and co-workers. These social relationships exhibit varying degrees of positive and negative qualities, making them vital

components of psychological well-being. When interpersonal tensions emerge, individuals typically employ emotion regulation strategies, such as avoidance, to manage their emotional responses while preserving meaningful relationships and protecting their overall well-being (Birditt et al., 2020). Notably, however, existing literature has not sufficiently explored how the quality of these personal relationships may interact with work-driven digital demands to shape employees' experiences of work-life conflict, which is a gap that becomes especially consequential in the Sarawak context, where civil servants are simultaneously navigating intensifying digital expectations and the personal demands of everyday life.

To deepen understanding of how these various factors interact under specific conditions, the current study examines employees' personal relationship satisfaction as a potential moderator that may influence the correlation between work-related smartphone use during off-work hours and work-life conflict outcomes. By investigating this interplay, the study provides the evidence base necessary for the Sarawak government to design digitally informed yet human-centered policies that do not merely accelerate service delivery, but also protect the workforce delivering it. Addressing this gap is timely and necessary. Without a clearer understanding of the protective or exacerbating role that personal relationships play in this dynamic, policy interventions aimed at supporting civil servants' well-being under PCDS 2030 risk being insufficiently informed.

The significance of this study extends across multiple stakeholder levels. For policymakers and government administrators, the findings offer actionable guidance in formulating workplace well-being interventions that are attuned to the realities of a digitally connected public service. Current policy discussions surrounding digital transformation tend to center on technological readiness and service efficiency; this study reframes the conversation by surfacing the human dimension of digitalization, specifically, how the blurring of work and personal boundaries affects civil servants, and, by extension, the quality of public services they deliver. The insights generated can therefore inform the development of boundary management policies, flexible work arrangements, and employee support programs that are calibrated to the unique pressures of a digitally transformed civil service.

For human resource professionals and organizational leaders within the Sarawak public sector, this study provides a deeper understanding of the conditions under which work-related smartphone use becomes problematic rather than productive. Instead of viewing digital connectivity as an unequivocal benefit, HR practitioners can use these findings to identify employees who may be particularly vulnerable to work-life conflict and direct support resources accordingly. This enables a more targeted and evidence-based approach to employee wellness, moving beyond generic well-being programs toward interventions that account for the intersection of digital work demands and personal life quality.

For Sarawak's civil servants themselves, the significance is both immediate and personal. These individuals occupy a uniquely demanding position. They are simultaneously expected to embrace and champion digital transformation while maintaining healthy personal lives and relationships. By investigating whether personal relationship satisfaction acts as a moderating factor in the association between work-related smartphone use and work-life conflict, the study may reveal protective factors that civil servants can actively leverage, and

that their organizations can consciously support, to sustain both performance and well-being over time.

From an academic standpoint, the study makes a meaningful contribution to the existing literature at the intersection of work-life conflict, technology use, and interpersonal relationships. While prior research has examined work-related smartphone use and work-life conflict as separate constructs, comparatively fewer studies have explored the moderating role of personal relationship satisfaction within this dynamic, particularly in a non-Western, public sector context. By situating the investigation within Sarawak's civil service, this study extends the generalizability of existing theoretical frameworks to a Southeast Asian developing-country setting, thereby addressing a notable gap in the literature. Furthermore, the findings may serve as a foundation for future research examining other potential moderators or mediators in the work-life conflict domain, as well as for cross-cultural comparative studies that seek to understand how cultural and contextual factors shape employees' experiences of digital work demands. This investigation therefore aims to provide actionable insights for sustaining Sarawak's civil servants as they navigate the digital transformation requirements of PCDS 2030 while maintaining healthy work-life integration.

Literature Review

This study builds on current theoretical and empirical work by addressing the interplay between work-related smartphone use during off-work hours and personal relationship satisfaction related to the work-life conflict.

Work plays an essential role in most people's lives (Bakker & de Vries, 2021). It offers purpose and meaning and positively impacts colleagues, supervisors, and clients. Moreover, being available for work during off-work hours is said to be ideal and is in the nature of any job. For instance, smartphones used for work purposes during off-work hours undoubtedly enabled employees to be more productive because they helped to save time in communication, improve coordination and collaboration, and the management of work information (Bautista, Rosenthal, Lin, & Theng, 2018; Dettmers, Bamberg, & Seffzek, 2016; Gadeyne, Verbruggen, Delanoeije, & De Cooman, 2018; Ghislieri et al., 2017).

However, if employees experience difficulties managing demands stemming from work-related smartphone use outside of working hours, they may experience work-life conflict. Repetitive work activities and constant work pressure eventually drain energy resources in an individual, resulting in exhaustion (Bakker & de Vries, 2021; Dishon-Berkovits, 2014; Lesener, Gusy, & Wolter, 2019; Shi et al., 2023). When exhaustion builds up over time, employees burn out from their jobs. As a result, they are at risk of experiencing work-life conflict, especially if they neglect other areas of their personal life (e.g., self-care, hobbies, relationships). In this case, employees' psychological resources for personal life activities are diminishing, thus decreasing the psychological availability of personal life domains (Ninaus et al., 2021).

On citing the role theory, role conflict may arise when there is increasingly continuous pressure from work and personal life demands and responsibilities that individuals must deal with (Rothbard, Phillips & Dumas, 2005). Hence, the increase of constant demands to be connected to the workplace after working hours blurs the boundaries between work and

personal life domain, which cause role conflict (Butts, Becker, & Boswell, 2015; Derks, Bakker, Peters, & van Wingerden, 2016).

Previous studies showed conflicting evidence regarding smartphone use for work. Some studies reported that work-related smartphone use during off-work hours helped to better coordinate work and personal life domains (e.g., Dettmers et al., 2016). However, other samples found a strong association between smartphone use for work and work-life conflict (e.g., Omar Lim, Wong, & Zahit, 2022; Son & Chen, 2018; Wang et al., 2022). Therefore, too much work-related smartphone use during off-work hours leads to a detrimental effect on employees' well-being. For instance, engaging in various tasks and meeting different work and personal life goals simultaneously may lead to exhaustion and impede subsequent performance, which results in work-life conflict. Furthermore, most of the findings were based on a Western context (e.g., Butts et al., 2015; Ohly & Latour, 2014), thus creating a need to advance our understanding of the adverse effects of work-related smartphone use on employees' work-life conflict in the Sarawak state. Therefore, we expect work-related smartphone use after working hours to increase work-life conflict among the Malaysian administrative and diplomatic officers. We hypothesize:

H₁: There is a relationship between work-related smartphone use after working hours and work-life conflict. Therefore, the frequent use of work smartphones during off-work hours increases the work-life conflict among Malaysian administrative and diplomatic officers.

Moreover, this study focused on the employees' relationship quality, which refers to a person's needs and desires for love, support, and security, or expectations within their relationship (Gerlach, Driebe, & Reinhard, 2020). A growing body of literature has documented its associations with individual and workplace outcomes. For instance, relationships with others serve as a buffer in managing stressful events more effectively (Blom, 2019; Bonfils et al., 2016; Cepukiene, 2019; Jiang & Wrzesniewski, 2022; Totenhagen et al., 2022), and are linked to improved job satisfaction (Gerlach et al., 2020), life satisfaction, and positive emotions (Perlman, 2007; Therèse & Reinholdsson, 2016). This is consistent with the argument put forward by Debrot, Siegler, Klumb, and Schoebi (2018), who posited that social resources are essential for conserving and replenishing one's resources when depleted. However, contradictory evidence exists; Demirtas and Tezer (2012) found that relationships did not significantly predict individuals' subjective well-being.

Furthermore, although the growing use of technology has enabled employees to remain connected to their work anywhere and at any time, this connectivity has also been associated with increased social withdrawal at home (Vlaardingerbroek, Kluwer, Van Steenbergen, & van der Lippe, 2013). Consequently, this may reduce couple's satisfaction in daily life (Debrot et al., 2018) and deplete other psychological resources available for non-work activities. Given these contradictory findings, it becomes important to investigate how individuals draw upon social resources, such as relationship satisfaction, to manage the accumulated demands of working life and to alleviate job strain. Thus, the present study addresses the following research question: To what extent is work-related smartphone use during off-work hours associated with work-life conflict, and does this association depend on personal relationship satisfaction? Furthermore, does a satisfying relationship exert a buffering effect under otherwise stressful conditions?

To summarize, we expect that the quality of personal relationships will influence the association between work-related smartphone use after working hours and work-life conflict. Therefore, we hypothesize:

H₂: Personal relationship satisfaction will moderate the association between work-related smartphone use after working hours and work-life conflict.

In addition, the current study responds to calls made by Geraldes, Madeira, Carvalho, and Chambel (2019) and Rashmi and Kataria (2021), who noted that research on the work-family interface has predominantly focused on working mothers, married employees, and dual-earner couples with young children (e.g., Butts et al. 2015; Dettmers, 2017). Nevertheless, other employee populations such as single professionals who care for the elderly or childless dual-earner couples, remain insufficiently researched regarding their balance between work and personal life, despite the issue being equally relevant to those outside traditional family structures. Therefore, given the gaps in the extant literature, the present study adopts a broader focus on work-life conflict rather than work-family conflict to extend our understanding of how these dynamics affect employees' work-life interactions.

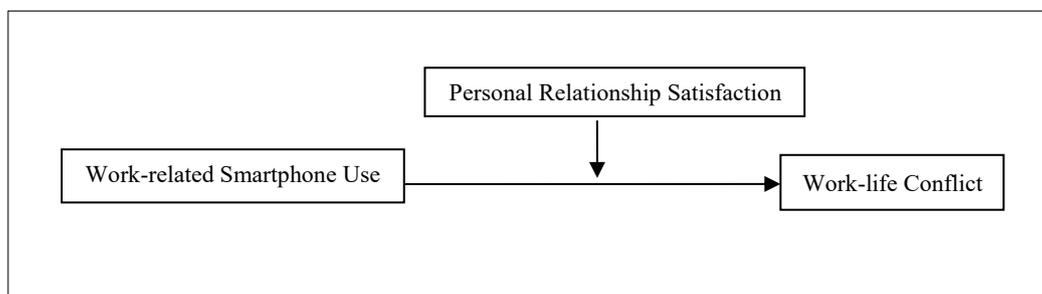


Figure 1: Conceptual model postulating the association between work-related smartphone use and work-life conflict is moderated by personal relationship satisfaction

Methodology

Participants and Procedure

The data was collected through an online survey and answered by the Malaysian administrative and diplomatic officers throughout Sarawak. Invitations to participate in the study were sent by text messages which provided information about the purpose of the study, confidentiality, and contact information of the researchers involved. The text messages contained a link to the survey and took approximately 12 to 15 minutes to complete. The online survey was divided into four (4) sections: work-related smartphone use during off-work hours, work-life conflict, personal relationship satisfaction, and demographic background.

Measures

Work-related smartphone use after working hours. Participants' use of smartphones for work during off-work hours was assessed using a four-item scale developed by Derks et al. (2016). Responses were recorded on a five-point Likert scale (1 = Strongly disagree to 5 = Strongly agree), with higher scores indicating greater work-related smartphone use after hours. A sample item is, "I used my smartphone intensively after work hours for work-related purposes". The scale showed acceptable internal consistency ($\alpha = .712$).

Work-life conflict. Participants rated their agreement (1 = *Strongly disagree* to 5 = *Strongly agree*) using a four-item scale developed by Glavin and Peters (2015). Higher scores reflect higher levels of work-life conflict. A sample item is, "I often do not have enough time for the important people in my life because of my job". The scale demonstrated excellent internal consistency ($\alpha = .926$).

Personal relationship satisfaction. Personal relationship satisfaction was assessed using a seven-item scale adapted from Demirtas and Tezer (2012). Responses were recorded on a five-point Likert scale (1 = *Strongly disagree* to 5 = *Strongly agree*), with higher scores indicating greater personal relationship satisfaction. A sample item is, "My relationship met my original expectations". The scale demonstrated good internal consistency ($\alpha = .868$).

Data Analysis

Descriptive statistics and zero-order correlations were computed to summarize the sample characteristics and examine initial associations among study variables. Moderation analyses were conducted using Hayes' (2018) PROCESS macro (Model 1) to test whether personal relationship satisfaction moderated the relationship between work-related smartphone use during off-work hours and work-life conflict. Prior to analysis, the predictor and moderator were mean-centered. Conditional effects were probed using simple slope analyses at low (-1 SD) and high (+1 SD) levels of the moderator. All confidence intervals were estimated using 5,000 bias-corrected bootstrap samples with a 95% confidence level.

Results and Discussion

Descriptive Statistics

A total of 109 Malaysian administrative and diplomatic officers throughout the Sarawak state regions participated in the current study, with 54.1 percent ($n = 59$) being predominantly female and 45.9 percent ($n = 50$) being male. Furthermore, 60.6 percent ($n = 66$) of the respondents were between 31 to 40 years of age, and 41.3 percent ($n = 45$) consisted of Malay. In addition, the majority of the respondents had up to Bachelor's degree education (64.2 percent), and as many as 84.4 percent ($n = 92$) were married. Furthermore, the results indicated that most of the participants (92.7 percent) had a supervisory position, and 54.1 percent ($n = 59$) had between 10 to 14 years of service working as Malaysian administrative and diplomatic officers. Finally, as many as 85.3 percent ($n = 93$) had full access to their work email account on their devices, and 97.2 percent ($n = 106$) had work chat groups. The summary profile of the respondents is illustrated in Table 1.

Table 1

Summary of respondents' demographic background

| | n | % |
|---|-----|------|
| Gender | | |
| Male | 50 | 45.9 |
| Female | 59 | 54.1 |
| Age group | | |
| 21-30 | 7 | 6.4 |
| 31-40 | 66 | 60.6 |
| 41-50 | 34 | 31.2 |
| 51-60 | 2 | 1.8 |
| Race | | |
| Malay | 45 | 41.3 |
| Chinese | 17 | 15.6 |
| Indian | 1 | 0.9 |
| Iban | 16 | 14.7 |
| Bidayuh | 18 | 16.5 |
| Others | 12 | 11.0 |
| Education level | | |
| Bachelor's degree | 70 | 64.2 |
| Master's degree | 39 | 35.8 |
| Marital status | | |
| Married | 92 | 84.4 |
| Divorced | 5 | 4.6 |
| Single | 12 | 11.0 |
| Years of service | | |
| 1 to 4 years | 16 | 14.7 |
| 5 to 9 years | 15 | 13.8 |
| 10 to 14 years | 59 | 54.1 |
| 15 to 19 years | 17 | 15.6 |
| 20 years and above | 2 | 1.8 |
| Supervisory position | | |
| Yes | 101 | 92.7 |
| No | 8 | 7.3 |
| Email account access on smartphone | | |
| Yes | 93 | 85.3 |
| No | 16 | 14.7 |
| Work chat group on smartphone | | |
| Yes | 106 | 97.2 |
| No | 3 | 2.8 |

Table 2

Means, standard deviations, and intercorrelations of measures

| | M | SD | 1 | 2 | 3 |
|---------------------------------------|-------|------|--------|--------|--------|
| 1. Personal relationship satisfaction | 27.36 | 4.39 | (.868) | | |
| 2. Work-related smartphone use | 14.17 | 3.06 | .157 | (.712) | |
| 3. Work-life conflict | 11.79 | 3.88 | -.223* | .286** | (.926) |

Notes: N = 109. Values in the parentheses represent scale reliability. *p < 0.05 and **p < 0.01.

Hypothesis Testing

Table 2 presents the means, standard deviations, reliabilities and correlations between the study variables. Pearson correlation test was conducted to determine a relationship between work-related smartphone use during off-work hours with work-life conflict. The results showed that work-related smartphone use after working hours was related to work-life conflict ($r = 0.286, p < .05$). Therefore, Hypothesis 1 was accepted.

Next, we tested our moderated hypothesis, and the results (Table 3) showed that work-related smartphone use during off-work hours had a significant relationship with work-life conflict. Furthermore, personal relationship satisfaction was related to lower levels of work-life conflict. In support of Hypothesis 2, personal relationship satisfaction moderates the association between work-related smartphone use after working hours and work-life conflict ($b = -.066, SE = .032, p < .05$).

Table 3

Moderation analyses testing the effect of personal relationship satisfaction on the relationship between work-related smartphone use during off-work hours on work-life conflict.

| | | Work-Life Conflict | | | |
|--|-------|--------------------|------|--------|------|
| | | Coeff | SE | t | p |
| Model 1 | | | | | |
| Intercept | i_1 | 11.926 | .346 | 34.457 | .000 |
| Work-related smartphone use (WSU) | b_1 | .460 | .115 | 4.006 | .000 |
| Personal relationship satisfaction (PRS) | b_2 | -.211 | .080 | -2.624 | .010 |
| Interaction (WSU x PRS) | b_3 | -.066 | .032 | -2.058 | .042 |
| $R^2 = .188$ | | | | | |
| $F(3,105) = 8.112, p < .05$ | | | | | |

Notes: * $p < 0.05$ and ** $p < 0.01$.

Following the hypothesis, Figure 2 illustrates the relationship between work-related smartphone use during off-work hours with work-life conflict. The relationship was more positive when the personal relationship satisfaction was low. On the other hand, smartphone use for work during off-work hours has a weakened predictive effect when personal relationship satisfaction is high. This shows that personal relationship satisfaction has a moderating role in this process, and thus, Hypothesis 2 is supported.

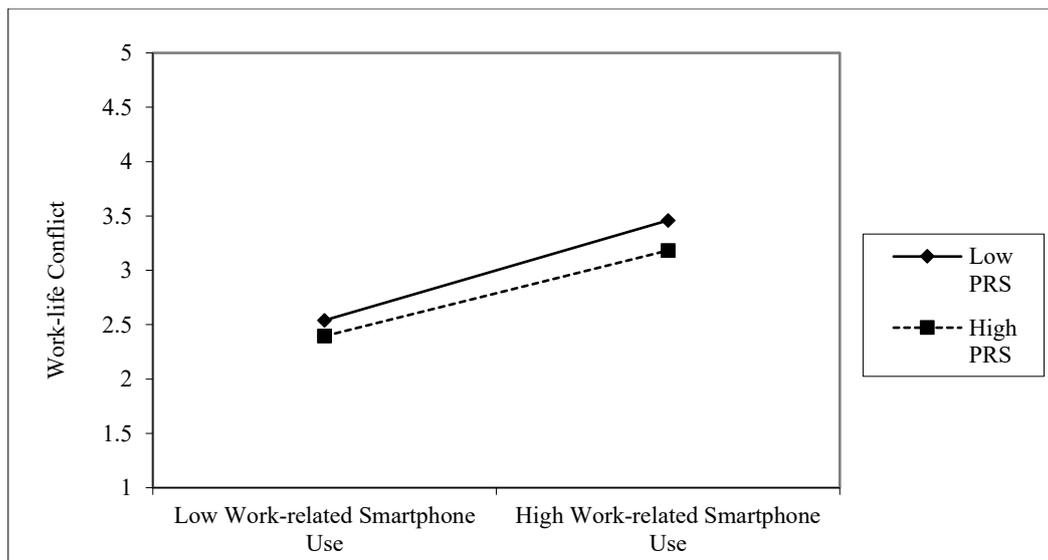


Figure 2: The interaction effect of personal relationship satisfaction on the relationship between work-related smartphone use after working hours and work-life conflict

Discussion

In general, our results are in line with the reports from previous research by adding support to the idea that employees who frequently use smartphones in the evening for work-related purposes led to a detrimental effect on employees' work and personal life domains (Butts et al., 2015; MacCormick, Dery, & Kolb, 2012; Omar Lim et al., 2022; Son & Chen, 2018; Wilkinson & Haar, 2023). Indeed, smartphone use in the evening or weekend offers an alternative way of working. However, the continuous pressure to work faster and longer and the obligations to immediately answer work-related phone calls, text messages, and emails after working hours from supervisors, colleagues, and clients will eventually lead to burnout. Consequently, employees who experience burnout tend to neglect other areas of their life (e.g., hobbies and self-care), which leads to a direct positive effect on work-life conflict.

Moreover, this study researched how employees' personal relationship satisfaction helped alleviate the accumulated demands of work-related smartphone use during off-work hours on work-life conflict. The moderator analysis indicated that personal relationship satisfaction produced significantly weaker correlations between work-related smartphone use during off-work hours and work-life conflict. Employees' spouses, partners, or friends can relate to the struggle to balance work and personal life demands and therefore, they are more sympathetic when work constantly interferes with personal life. Employees satisfied with their personal relationships will allocate their time with their essential persons with the support given. Thus, they can cope with stressful events more effectively (Blom, 2019; Gerlach et al., 2020; Røsand et al., 2012) and are not affected by work-related smartphone use during off-work hours. This finding supports the work of Blom (2019), Bonfils et al. (2016) and Cepukiene (2019), who suggested that romantic and friendship relationships served as a buffer and helped alleviate job strain.

Therefore, the strength of personal relationship satisfaction shapes the consequences employees experience of smartphone use for work purposes during off-work hours on work-life conflict. The adverse effects of work-related smartphone use during off-work hours on work-life conflict were buffered for individuals with high levels of personal relationship

satisfaction. With the constant social and emotional support received from their personal relationships, the employees experienced less work-family conflict although they were required to be working via smartphones after work hours. In contrast, those who are dissatisfied with their personal relationships experienced a high work-life conflict due to the increase in smartphone use for work during off-work hours.

When Eby, Maher, and Butts (2010) stated that work life and personal life are interconnected and affect each other, a well-functioning relationship with others contributes to mental, physical and well-being. Likewise, Røsand et al. (2012) mentioned that social support and relationship satisfaction had shown to be important protective factors regarding an individual's ability to handle and recover from stressful events. This is further supported by Fritz and Taylor (2020) and Wayne et al. (2023), where spouses who help employees detach and unwind by temporarily taking on more responsibilities around the house to free up their partner's time to engage in activities that foster detachment or plan activities that both can engage in together.

Implications

Our findings have several critical implications for organizational practice, particularly within Sarawak's public sector context. While the objectives of PCDS 2030 necessitate an engaged and responsive civil service workforce, sustainable achievement of these development goals requires attention to employee well-being and work-life balance. First, even though leaders in organizations such as supervisors and managers send work emails or text messages via smartphones during evening hours or weekends, they should not expect employees to be always available. Given that work-related smartphones are so widely used in today's workplaces, supervisors and managers should be supportive of employees' preferences to keep work and personal life separate. In view of these results, organizations could cultivate a culture where boundaries between work and personal life can be implemented to improve work and personal life outcomes. This can be done by developing policies and practices on using smartphones for work after working hours (e.g., a "no after hour" smartphones policy).

On another practical side, a key takeaway of the current research study is employees should develop strategies when creating personal boundaries between work and personal life domains. This can be implemented by communicating with supervisors, colleagues, and clients on the importance of setting up boundaries and explaining the downside of not psychologically detaching from work due to the constant use of work-related smartphones during non-work hours.

Limitations and Directions for Future Research

While this study provides valuable insights into work-related smartphone use and work-life conflict among Sarawak's civil servants, several methodological limitations warrant consideration and suggest promising avenues for future research.

First, our sample exclusively comprised administrative and diplomatic officers from Sarawak's public sector. This narrow occupational focus limits generalizability to other professional groups and geographical contexts. Future research should examine whether similar patterns emerge among other occupational categories characterized by different levels of work

interdependence and client responsibility, such as medical officers, educators, journalists, or private sector professionals.

Second, comparative studies across Malaysian states and international contexts would illuminate how societal and national culture shape employees' experiences of the work-life interface and their responses to after-hours connectivity demands. Such cross-cultural research would be particularly valuable given the varying legislative approaches to digital connectivity rights across nations.

Third, the study's reliance on cross-sectional, self-report data presents inherent methodological constraints. Our findings may be susceptible to common method variance, social desirability bias, and other response biases that can inflate or obscure true relationships among variables. Future research would benefit from incorporating multiple data collection methods, including supervisor or spouse ratings, objective measures of smartphone use (e.g., application tracking data), and physiological indicators of stress. Moreover, longitudinal and experience sampling methodologies such as daily diary studies would enable researchers to capture the dynamic, temporal nature of work-related smartphone use, relationship satisfaction, and work-life conflict. Such approaches would provide more nuanced understanding of how these variables interact across different time scales and contextual situations.

Fourth, this study focused exclusively on smartphone use for work purposes during off-work hours. However, the contemporary digital workplace encompasses multiple technological platforms and devices. Future research should broaden the scope to examine other communication technologies, including laptops, tablets, and desktop computers, as well as various communication channels such as video conferencing platforms and instant messaging applications. This expanded technological lens would provide a more comprehensive understanding of digital boundary violations and their cumulative effects on work-life interface.

Finally, while personal relationship satisfaction emerged as a significant moderator in our study, additional boundary conditions and factors warrant investigation. Future research could explore the roles of organizational culture, supervisor support, individual differences (e.g., boundary management preferences, personality traits) in shaping the relationship between after-hours connectivity and work-life conflict. Given the Post COVID-19 Development Strategy 2030 (PCDS 2030) context, intervention studies examining the effectiveness of specific workplace policies or support programs in mitigating technology-induced work-life conflict among Sarawak's civil servants would provide actionable evidence for organizational and governmental decision-makers.

Conclusion

In Sarawak's evolving workplace landscape, organizations increasingly expect employee availability while digital device usage continue to proliferate. This trend is particularly pronounced in the public sector, where the Post COVID-19 Development Strategy 2030 (PCDS 2030) relies heavily on civil servants in policy implementation and service delivery transformation. Human service workers, such as the administrative and diplomatic officers,

face mounting work-related stressors as they navigate both traditional responsibilities and the demands of ambitious development agendas.

Current researchers intend to understand better the relation between work-related smartphone use during off-work hours on work-life conflict among administrative and diplomatic officers in Sarawak, with particular attention to the moderating role of personal relationship satisfaction. Our results indicate that extensive smartphone use for work purposes significantly increases interruptions from supervisors, clients, and colleagues during personal time. Thus, work-related smartphone use during off-work hours has negatively affected the relationship between employees' work and personal life spheres.

However, it has been found that personal relationship satisfaction can alleviate the detrimental consequences of work-related smartphones after working hours on work-life conflict. Given that employees face an increasingly fast-paced work environment and a growing number of work-related smartphones used during off-work hours, a satisfying personal relationship contributes to a better ability to cope with stressors. Furthermore, personal relationship satisfaction can generate positive emotions that are believed to moderate the relationship between work-related smartphone use for work during off-work hours on work-life conflict. Hence, the quality of a relationship is one of the most powerful predictors of an individual's physical and mental health outcomes and quality of life (Gustavson et al., 2016; Wayne et al., 2023).

Employers or people in positions (e.g., supervisors or managers) must refrain from contacting employees in organizations. It is their responsibility to communicate their expectations on employees' smartphone use after working hours. Therefore, its impact and the consequences on employees' personal life must be monitored, regulated or reduced. Several European nations, including France, Belgium, Portugal, Italy, Ireland, Spain, and Germany, have implemented "right to disconnect" legislation that prohibits managers from using emails and smartphones to contact employees during off-work hours, thereby safeguarding employees' opportunities to psychologically detach from work and achieve adequate recovery (Derks & Bakker, 2014; Sonnentag, & Niessen, 2020). Such policy frameworks warrant serious consideration in the Sarawak context, as a well-rested, psychologically healthy civil service workforce is more likely to effectively implement transformative policies and deliver quality public services aligned with PCDS 2030 objectives.

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