COGNITIVE SCIENCES AND HUMAN DEVELOPMENT

The relationship between digital technology usage, managerial support, and psychological detachment with employees' work-life conflict in the public sector in Kuching

Leong Ming Fang, Sheilla Lim Omar Lim* & Aina Razlin Mohammad Roose
Faculty of Cognitive Sciences and Human Development, Universiti Malaysia Sarawak,
94300 Kota Samarahan, Sarawak, Malaysia.

ABSTRACT

Navigating the balance between professional responsibilities and personal well-being remains a significant challenge facing today's workforce in our increasingly connected global workplace. This study investigates key factors influencing work-life conflict through the theoretical lens of the Job Demands-Resources (JD-R) model, examining how digital technology usage, managerial support, and psychological detachment interact to shape employees' work-life experiences. A quantitative approach was employed, collecting data from 100 public sector employees in Kuching, Sarawak via an online questionnaire. Results indicate that digital technology usage, as a job demand, is positively associated with work-life conflict, suggesting that higher technology use contributes to greater conflict between work and personal life. In contrast, managerial support and psychological detachment, as job resources, are negatively associated with work-life conflict, demonstrating that supportive leadership and the ability to disengage from work help mentally reduce such conflict. These findings provide valuable insights for organisational policy development, suggesting that interventions should target both reducing excessive technology demands and strengthening supportive resources. Human resource practitioners can leverage these results to design comprehensive wellness programs that facilitate psychological detachment, foster supportive leadership practices, and establish reasonable boundaries for technology use.

Keywords: work-life conflict, digital technology usage, managerial support, psychological detachment, Job Demands-Resources (JD-R) model

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Email address: olslim@unimas.my (Sheilla Lim Omar Lim)
*Corresponding author
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1 INTRODUCTION

The digital workplace has fundamentally transformed how employees interact with work, seamlessly blending physical, cultural, and technological aspects (Marsh et al., 2022). Work-life conflict arises when negative work experiences spill over into personal life, often resulting in strained relationships, diminished well-being, and reduced job satisfaction (Dorenkamp & Ruhle, 2019). While digital technologies have enhanced productivity, autonomy, and connectivity, they have also introduced psychosocial challenges such as increased stress, burnout, and work-life conflict (Alwis & Hernvall, 2021; Blake et al., 2024; Marsh et al., 2022). Yet, van Zoonen et al. (2020) reported that after-work technology use did not directly relate to work-life conflict. Moreover, Shi et al. (2021) suggest that digital technology usage after work hours can be a resource, especially in collectivist cultures. Guided by collectivist values in Eastern and particularly Chinese contexts, extra work is often seen as self-sacrifice for enhancing social status, financial security, and more importantly, family well-being (Galovan et al., 2010; Yang et al., 2000). Thus, employees may perceive digital technology usage after work hours as a way to build or conserve resources for their families, while also staying connected to colleagues anytime and anywhere. This inconsistency highlights a research gap, suggesting the impact of digital technology on work-life conflict may depend on contextual factors such as organisational culture or the manner in which technology is embedded into work processes. These challenges are particularly salient in the public sector, where civil servants often struggle to balance organisational demands with personal responsibilities.

This issue has gained urgency in regions undergoing rapid digital transformation, such as Sarawak, Malaysia. As outlined in the Sarawak Digital Economy Blueprint 2030, the state government aims to enhance public sector structure and strengthen the capabilities of civil servants by accelerating the adoption and integration of digital technologies to improve service delivery, workflow efficiency, productivity, and ease of doing business (Economic Planning Unit Sarawak, Department of the Premier of Sarawak, & Sarawak Multimedia Authority, 2023). One of the Blueprint's five strategic pillars, Public Sector and Services focuses on delivering efficient, secure, and trusted services, supported by better data availability and a highly skilled, digitally enabled workforce. The vision is that all government services will be easily and safely accessible online by 2030.

While this transformation represents a forward-thinking commitment to modern governance, it also brings significant implications for employee well-being. As public services become increasingly digitised, civil servants face rising expectations to remain accessible, responsive, and productive beyond traditional office hours. This "always-on" digital culture, if not carefully managed, can blur the boundaries between work and personal life, increasing the risk of work-life conflict. Key factors contributing to work-life conflict in this context include digital technology usage, managerial support, and psychological detachment. For instance, employees' engagement with digital tools after work hours has extended job-related involvement into personal time, making it difficult to disengage (Omar Lim et al., 2022; Zhang et al., 2020).

Sarawak's vision of a fully digitised, data-driven public service also implies increased technology use and a more intense digital work environment. While these tools are meant to enhance productivity, they can also result in technostress, especially when civil servants are expected to master multiple digital platforms, respond in real-time, and ensure data accuracy and compliance. Moreover, the centralised digital infrastructure, though necessary for integration and security, may limit individual autonomy over technology use, further intensifying the burden on employees. For instance, a government officer using centralised reporting systems and communication platforms may face information overload and an expectation of immediate availability, which encroaches on personal time and reduces opportunities for recovery.

Managerial support plays a critical role, shaping employee well-being, reducing stress, and influencing how successfully individuals balance work and life demands (Ogbonnaya, 2019). In rapidly digitalising public institutions such as those in Sarawak, managerial support becomes a vital resource in managing digital work-life boundaries. Supportive managers who display fairness and positive attitudes can significantly ease employee stress (Bilotta et al., 2021; Shi et al., 2021). Yet, in the public sector, policy constraints and hierarchical structures often restrict managers' ability to introduce flexible work arrangements or enforce digital disconnection. For example, a civil service manager may wish to encourage healthier digital practices, but organisational demands tied to key performance indicators or urgent reporting requirements often take precedence. As digital platforms become embedded in daily operations, frontline employees, especially in citizen-facing roles, may feel compelled to remain constantly available.

These dynamics align closely with the Job Demands-Resources (JD-R) model outlined in the introduction. Within this framework, managerial support operates as a job resource that mitigates the negative impact of digital transformation demands. Sarawak civil servants are expected to master new technologies, adapt to evolving processes, and build digital competencies, all of which increase cognitive and emotional strain. Managerial support helps balance these pressures by offering instrumental resources (e.g., access to tools and training), informational resources (e.g., clear guidelines and feedback), and emotional resources (e.g., empathy and recognition).

In parallel, psychological detachment, the ability to mentally disengage from work during non-working hours helps reduce stress, supports recovery, and mitigates work-life conflict (Sonnentag et al., 2017; Zhou et al., 2020). Distancing from work during non-work hours promotes energy restoration and well-being (Skurak et al., 2021) and is considered a valuable personal resource for sustaining recovery (Mellner et al., 2022). However, the cultural orientation of public service, grounded in mission-driven responsibility and civic duty, can make detachment difficult, particularly when reinforced by digital technologies. Civil servants may feel internal pressure to respond to work communications after hours, perceiving such responsiveness as a sign of commitment to public service.

Sarawak's public sector reforms, where digital service delivery and public accountability are emphasised, may lead to chronic engagement with work tasks, even during rest periods. For example, an administrative officer in a local government department may feel obliged to check digital dashboards or respond to citizen queries outside regular working hours, particularly as digital tools make such engagement easier.

Despite growing academic interest in this domain, several research gaps remain. Empirically, there is limited understanding of how technology use, workplace support, and psychological detachment shape work-life dynamics, particularly in emerging digital economies like Sarawak (Alwis & Hernvall, 2021; Gisler et al., 2018; Jang, 2009; Le et al., 2020; Skurak et al., 2021). Furthermore, the interactions among these factors and their combined effects on work-life conflict are not yet fully understood. Practically, the widespread shift toward digitally mediated workflows, accelerated by policy blueprints such as Sarawak's, has intensified issues of overwork and work-life imbalance, with significant implications for employee well-being and public sector effectiveness (The Organisation for Economic Co-operation and Development, 2021).

As Sarawak's public sector undergoes digital transformation in line with the Digital Economy Blueprint 2030, employee well-being and work-life balance must not be sidelined. While digitalisation promises greater efficiency and better service delivery, it must be accompanied by supportive managerial practices, policies on digital disconnection, and capacity-building efforts that help civil servants navigate digital tools without compromising personal well-being. Embedding work-life balance into the broader digital transformation agenda will ensure that civil servants are not only productive but also resilient and engaged in delivering quality public services for Sarawak's citizens.

To address these gaps, this study applies the JD-R model (Bakker & Demerouti, 2017) to examine how digital technology usage, managerial support, and psychological detachment influence work-life conflict among public sector employees in Kuching, Sarawak. The JD-R model, established 15 years ago, extensively explores employee well-being (Bakker & Demerouti, 2017; Bakker et al., 2023). This model provides a useful lens for understanding why managerial support is especially critical during periods of digital transformation. When job demands exceed available resources, employees are more likely to experience strain that spills over into their personal lives, contributing to work-life conflict (Bilotta et al., 2021; Blake et al., 2024; Choi et al., 2022). In contrast, when managers provide adequate resources to meet or even exceed job demands, employees sustain higher levels of energy and engagement, enabling them to function effectively across both work and personal domains (Bakker et al., 2023). In this way, supportive managers play a pivotal role in ensuring that the increased demands of digital adoption are matched by corresponding increases in resources, thereby protecting employees from work-life conflict. By focusing on a region undergoing active digital transformation guided by a state-level blueprint, this study offers a timely and contextually grounded perspective on how structural reforms intersect with employee experience.

The study aims to explores the main factors contributing to work-life conflict through the theoretical framework of the JD-R model, focusing on how digital technology use, managerial support, and psychological detachment collectively influence employees' work-life experiences. To address the objectives of this study, researchers investigated the following hypotheses:

H1: There is a significant relationship between digital technology usage and employees' work-life conflict.
H2: There is a significant relationship between managerial support and employees' work-life conflict
H3: There is a significant relationship between psychological detachment and employees' work-life conflict.
H4: There is a dominant factor that contributes most significantly to employees' work-life conflict.

2 METHODS

2.1 Design

This study employed a quantitative research design to examine the relationships between digital technology usage, managerial support, psychological detachment, and employees' work-life conflict. The cross-sectional research design approach allowed for data collection at a single point in time, providing a snapshot of the relationships among variables within the current workplace environment.

2.2 Participants

Using G*Power analysis (Faul et al., 2009) with a medium effect size ($f^2 = 0.15$), an alpha level of 0.05, and a power of 0.80 for multiple regression with three predictor variables (digital technology usage, managerial support, and psychological detachment), a minimum sample size of 77 participants was determined. To mitigate risks of incomplete responses and to strengthen statistical power, the target sample size was increased to 100 participants. A purposive sampling strategy was employed, focusing on employees directly engaged in the implementation of the Sarawak Digital Economy Blueprint 2030. This approach ensured that participants possessed relevant experience with digital transformation initiatives in the public sector. The sample included individuals across multiple job levels, ranging from frontline staff to executive management, and represented diverse departments involved in the Digital Economy Blueprint 2030 implementation. Including individuals across hierarchical levels and functional areas provided a richer understanding of how digital initiatives affect employees, thereby enhancing the generalisability of findings to the broader Sarawak public sector workforce. To capture variations in personal and professional background, demographic information was collected, including gender, age, marital status, educational attainment, and employment level. The sample included 56 women (56%) and 44 men (44%). Participants were primarily between 25 and 39 years old, with 29 individuals (29%) aged 25-29, 32 individuals (32%) aged 30-34 years, and 25 individuals (25%) aged 35-39 years. More than half of the participants (n = 57, 57%) reported being married. In terms of educational attainment, 45 participants held a bachelor's degree. Occupationally, most respondents (n = 78, 78%) were employed in non-management positions.

2.3 Instrument

Data were collected through an online survey platform (i.e., Google Forms), which took approximately 13-15 minutes to complete. Before the actual data collection, a pilot study involving 30 respondents was conducted to ensure the instrument's reliability. The reliability analysis of the pilot study is presented in Table 1.

Table 1. Reliability analysis of the pilot study.

Variable	Number of Items	Cronbach's Alpha (α) Value
Digital technology usage	5	0.909
Managerial support	4	0.791
Psychological detachment	6	0.789
Work-life conflict	4	0.840
Overall items	19	

The online questionnaire consisted of five (5) sections, which assessed digital technology usage, managerial support, psychological detachment, work-life conflict, and demographic information. The first section collected demographic information, including gender, age, marital status, highest academic qualification, and employment level.

The second section measured digital technology usage after work hours using a five-item scale developed by Fenner and Renn (2010). Respondents rated each item on a five-point Likert scale ranging from 1 (Never) to 5 (Always), with higher scores indicating greater use of technology outside work hours. The scale has demonstrated good reliability, with a reported Cronbach's alpha of .88. An example item is: "When I cannot finish my work during the day, I work hard at home at night or on weekends to keep up with the incomplete work by using my smartphone, tablet, laptop or computer."

The third section assessed managerial support using a four-item scale developed by Jang (2009). All items were rated on a six-point Likert scale, ranging from 1 (Strongly Disagree) to 6 (Strongly Agree). Higher scores indicate stronger perceptions of managerial support. Previous research reported good reliability for this scale, with Cronbach's alpha of .86 (Jang, 2009). An example item is: "My supervisor or manager is fair and does not show favouritism in responding to employees' personal or family needs".

The fourth section measured psychological detachment. Using a six-item scale suggested by DeArmond et al. (2014), all items were rated on a six-point Likert scale, ranging from 1 (Strongly Disagree) to 6 (Strongly Agree). Higher scores indicate a greater ability to detach from work psychologically. Reliability evidence from prior research indicated acceptable consistency, with Cronbach's alpha of .83 (Siegrist et al., 2004, as cited in DeArmond et al., 2014). An example item is: "I start thinking about my work problems as soon as I get up in the morning".

The fifth section measured work-life conflict with a four-item scale developed by Glavin and Peters (2015). Items were rated on a five-point Likert scale ranging from 1 = Never to 5 = Always. Higher scores represent greater levels of work-life conflict. The scale demonstrated strong reliability in prior studies, with Cronbach's alpha of .90 (Glavin & Peters, 2015). An example item is: "How often did you not have enough time for the important people in your life because of your job?".

All instruments demonstrated acceptable reliability with Cronbach's alpha coefficients ranging from 0.789 to 0.909.

2.4 Procedure

Each participant received a personalised email invitation detailing the study's purpose, objectives, and procedures. The invitation also included assurances of confidentiality and anonymity to encourage honest participation and reduce potential response bias. A two-week window was allocated for completion of the questionnaires. Follow-up reminders were sent midway through the response period to maximise participation rates and minimise non-response.

2.5 Data Analysis

Descriptive statistics were utilised to provide a clear quantitative summary of the sample characteristics. Pearson correlation tests examined the relationships between variables, revealing how digital technology usage, managerial support, and psychological detachment each related to employees' work–life conflict. Multiple regression analysis was further applied to determine which factors most significantly influenced work–life conflict. This predictive approach identified not only relationships between variables but also their relative importance in predicting employees' ability to balance work and personal life demands.

3 RESULTS

This section presents the findings of the study. For the first hypothesis (H1), the researchers predicted that a significant correlation exists between the utilisation of digital technology and the work-life conflict experienced by employees. Table 2 shows a moderate positive correlation between digital technology usage and employees' work-life conflict, $r(100) = 0.631$, $p < 0.01$, $p = 0.000$. Although moderately related, these results suggest that greater use of digital technology after work hours is associated with increased work-life conflict.

As hypothesised, there is a significant relationship between managerial support and employees' work-life conflict (H2). A moderate negative correlation is observed between managerial support and work-life conflict, $r(100) = -0.736$, $p < 0.01$, $p = 0.000$, indicating that employees who receive substantial managerial support, including procedural and emotional assistance, are less likely to experience work-life conflict. Furthermore, the findings indicate a significant relationship between psychological detachment and employees' work-life conflict (H3). A strong

negative correlation, r (100) = -0.824, p < 0.01, p = 0.000, highlights how insufficient psychological detachment from work increases vulnerability to work-life conflict.

Table 2. Pearson correlations of digital technology usage, managerial support, psychological detachment, and employees' work-life conflict.

Correlations		
		Work-life Conflict
Digital Technology Usage	Pearson Correlation	.631**
	Sig. (2-tailed)	.000
	N	100
Managerial Support	Pearson Correlation	-.736**
	Sig. (2-tailed)	.000
	N	100
Psychological Detachment	Pearson Correlation	-.824**
	Sig. (2-tailed)	.000
	N	100

**Correlation is significant at the 0.01 level (2-tailed).

As for the final hypothesis (H4), the researchers proposed that at least one factor among digital technology usage, managerial support, and psychological detachment would significantly influence employees' work-life conflict. As shown in Table 3**,** all three factors emerged as significant predictors (p < 0.05), though with varying degrees of impact. Psychological detachment demonstrated the strongest relationship with work-life conflict, with a coefficient of -0.481. This negative relationship indicates that for each unit increase in psychological detachment, work-life conflict decreases by 0.481 units. This finding underscores the critical role of mental disengagement from work during personal time in reducing work-life conflict.

Contrarily, digital technology usage exhibited a positive relationship with work-life conflict, with a coefficient of 0.234. This suggests that increased technology use is associated with greater work-life conflict. Specifically, each unit increase in digital technology usage corresponds to a 0.234 unit increase in work-life conflict, highlighting the potential downsides of technology dependence in the workplace.

Managerial support also showed a negative relationship with work-life conflict, with a coefficient of -0.195, indicating that supportive management practices help reduce employees' work-life conflict, though to a lesser extent than psychological detachment.

Overall, the multiple regression analysis yielded the following predictive equation:

$$\text{Work-life conflict} = 4.742 - 0.481\ (\text{Psychological Detachment}) + 0.234\ (\text{Digital Technology Usage}) - 0.195\ (\text{Managerial Support})$$

In the provided equation, the coefficients (-0.481, 0.234, and -0.195) signify the strength and direction of each independent variable's impact on the dependent variable. The constant term (4.742) represents the baseline level of work-life conflict when all predictors are zero. This equation allows for predicting work-life conflict levels based on the three key variables examined in this study.

In summary, our analysis confirms that all three factors significantly influence work-life conflict, with psychological detachment emerging as the dominant protective factor while digital technology usage acts as the primary risk factor for increased work-life conflict.

Table 3. Multiple regression analysis.

Coefficients						
		Unstandardised Coefficients		Standardised Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	4.742	.378		12.533	.000
	Psychological Detachment	-.481	.067	-.557	-7.157	.000
	Digital Technology Usage	.234	.077	.199	3.052	.003
	Managerial Support	-.195	.072	-.215	-2.711	.008

a. Dependent Variable: Work-life Conflict

4 DISCUSSION

This study examined how digital technology usage, managerial support, and psychological detachment influence work-life conflict among public sector employees at a government agency. All hypotheses (H1 to H4) were supported by our findings, revealing important insights into the factors influencing work-life conflict in today's digital workplace environment.

4.1 The Relationship between Digital Technology Usage and Work-Life Conflict

Our results revealed a moderate positive correlation between digital technology usage and employees' work-life conflict, supporting Hypothesis 1. The correlation between digital technology usage and work-life conflict aligns with extensive previous research demonstrating technology's potential negative impact on employee well-being (Alwis & Hernvall, 2021; Blake et al., 2024; Chen & Casterella, 2019; Choi et al., 2022; Dragano & Lunau, 2020; Tennakoon,

2021; Xu et al., 2022). Specifically, Omar Lim et al. (2022) found that frequent after-hours technology use for work-related tasks corresponded with higher levels of work-life conflict. This relationship manifests through several distinct mechanisms in the context of Sarawak's digital transformation initiatives. Foremost among these is the phenomenon of work extension, where digital tools enable work activities to expand beyond traditional temporal and spatial boundaries. As civil servants gain remote access to government information systems, cloud-based collaboration platforms, and mobile work applications, the traditional constraints that once limited work to office settings during defined hours are eliminated. This creates psychological pressure that can spill over into personal domains, as employees carry the mental burden of accelerated work rhythms even during non-work hours (Dragano & Lunau, 2020).

Additionally, digital technology contributes to work-life conflict through the mechanism of role blurring, where the distinctions between professional and personal identities become increasingly ambiguous (Blake et al., 2024; Choi et al., 2022; Omar Lim et al., 2022). As Sarawak's civil servants adopt communication technologies that connect them to colleagues and citizens across contexts, the clear delineation between "being at work" and "being at home" dissolves. The psychological transitions between work and personal roles become less distinct, making it difficult to engage in either domain without intrusions from the other.

From the JD-R perspective, digital technology usage introduces several job demands that can trigger the health impairment process, leading to work-life conflict. Technological complexity demands cognitive resources as employees learn new systems and adapt to changing workflows. Information overload requires sustained attention and processing capacity. The blurring of work-home boundaries creates role conflict and decision fatigue regarding when and how to engage with work. Expectations for rapid responses and continuous availability generate time pressure and psychological strain. According to the JD-R model, these technology-related demands deplete employees' psychological, physical, and emotional resources, leaving insufficient reserves for fulfilling family responsibilities or engaging in personal recovery activities.

4.2 The Relationship between Managerial Support and Work-Life Conflict

Supporting Hypothesis 2, our analysis demonstrated a moderate negative correlation between managerial support and work-life conflict. Our findings regarding the negative correlation between managerial support and work-life conflict reinforce previous research identifying managerial support as a crucial resource in reducing work-life conflict (Au & Ahmed, 2016; Baker & Kim, 2020; Choi, 2018; Jang, 2009; Kumar et al., 2018; Liu et al., 2021; Talukder, 2019). This aligns with research by Decuypere et al. (2020), which demonstrates that positive leadership styles are correlated with reduced job stress and improved employee performance. This inverse relationship indicates that higher levels of managerial support are associated with lower experiences of work-life conflict among employees. Our results suggest that when supervisors demonstrate sensitivity to employees' personal needs, individuals can manage both work and personal commitments more effectively, resulting in reduced conflict between these life domains.

These consistent findings across multiple studies underscore the significant role that managers play in creating work environments that facilitate better work-life balance, particularly in contexts undergoing technological transformation. The convergence of evidence suggests that managerial support represents a robust protective factor against work-life conflict regardless of organisational setting or industry context.

Relevant to Sarawak's digital transformation initiatives, supportive managers play a crucial role in establishing clear expectations around digital availability and responsiveness as Sarawak accelerates its digital adoption. By setting guidelines for after-hours communications and email response expectations, and modelling healthy digital boundaries themselves, managers create a work culture where employees can fully detach without fear of negative consequences (Park et al., 2020) despite the increased connectivity enabled by digital tools (van Zoonen et al., 2020). This boundary management approach is often formalised through implementing "right to disconnect" practices within digitally transformed workflows. These practices significantly reduce strain-based conflict by decreasing the psychological pressure to be perpetually available in an increasingly digital work environment, allowing employees to disconnect and recover during their personal time fully (Xu et al., 2022).

4.3 The Relationship between Psychological Detachment and Work-Life Conflict

The strongest relationship identified in our study was the negative correlation between psychological detachment and work-life conflict, providing strong support for Hypothesis 3. Our findings regarding the negative correlation between psychological detachment and work-life conflict are consistent with previous research demonstrating that psychological detachment is inversely related to work-life conflict and positively associated with quality of work-life (Mellner et al., 2022; Olafsen & Bentzen, 2020; Skurak et al., 2021; Türktorun et al., 2020; Wendsche & Lohmann-Haislah, 2017; Zhou et al., 2020; Žiedelis et al., 2022). This growing body of evidence suggests a robust relationship that extends beyond specific organisational contexts and cultural settings. This emphasises that the ability to avoid work-related thoughts and tasks during personal time plays a crucial role in maintaining a healthy work-life balance. Psychological detachment, the ability to mentally disconnect from work during non-work hours, emerges as a critical factor in reducing work-life conflict within the context of Sarawak's digital economy transformation.

Prior studies have particularly highlighted how employees who struggle to disengage from work during non-work hours mentally often spend excessive time on work-related activities instead of engaging in restorative experiences (Skurak et al., 2021). Our research extends these findings by demonstrating their applicability in the specific context of digital transformation within the public sector. While previous research has established the general importance of psychological detachment, our study contributes to understanding how this relationship functions within the unique demands of government digital transformation initiatives.

The relationship between psychological detachment and reduced work-life conflict aligns elegantly with the JD-R model. In Sarawak's digital transformation context, civil servants face elevated job demands, including cognitive complexity (learning new systems), emotional labour (managing citizen reactions to digital changes), and workload pressure (implementing new processes while maintaining service continuity). According to the JD-R model, these demands consume energy resources and, without sufficient recovery, lead to strain, including work-life conflict. Thus, psychological detachment serves as a recovery mechanism that restores depleted cognitive, emotional, and physical resources, reversing the resource loss spiral that would otherwise lead to conflict between work and personal domains. A civil servant who mentally disconnects from digital transformation challenges during evening hours experiences better sleep quality, recovered energy, and improved mood the following day. These restored resources not only improve work performance but also enhance the quality of family interactions, creating a virtuous cycle that further reduces work-life conflict.

4.4. Dominant Predictors of Work-Life Conflict

Our multiple regression analysis for Hypothesis 4 revealed that digital technology use, managerial support, and psychological detachment are all significant predictors of work-life conflict. Among these, psychological detachment was the strongest predictor, followed by digital technology use and then managerial support. This hierarchical relationship among predictors provides important insights into the underlying dynamics of work-life conflict in digitally transforming environments.

The strong predictive role of psychological detachment highlights the importance of maintaining cognitive and emotional boundaries in a digital workplace. Its influence likely arises from its function as a proximal mechanism mediating the link between work experiences and home life. Whereas digital technology use and managerial support shape external work conditions, psychological detachment reflects the internal process employees use to regulate the spillover of work-related thoughts, emotions, and behaviours into personal life. A civil servant who engages extensively with digital technologies but successfully "switches off" mentally during personal time may experience less work-life conflict than a colleague who uses technology moderately but continues to ruminate about work during family time. This direct buffering effect explains why psychological detachment emerged as the strongest predictor in our analysis.

Digital technology usage emerged as the second strongest predictor, highlighting how technological tools reshape the work-life interface during Sarawak's digital transformation. As part of the Blueprint's implementation, digital technologies create new pathways for work extension. Mobile devices bring work tasks into personal spaces, communication tools facilitate after-hours contact, and remote access capabilities remove geographical barriers to work engagement. These capabilities, while enhancing flexibility and efficiency, simultaneously blur the distinction between professional and personal life. As a result, traditional boundary management strategies that relied on physical separation from the workplace are increasingly undermined, creating new challenges for sustaining work-life balance.

Managerial support emerged as the third strongest predictor, indicating its importance but somewhat more distal influence on work-life conflict. The negative correlation between managerial support and work-life conflict highlights leadership's critical role in creating organisational conditions that either enable or undermine healthy boundaries. The relatively lower predictive strength of managerial support compared to psychological detachment and technology usage may reflect its operation through multiple indirect pathways. Managerial support influences work-life conflict by shaping technology usage norms, providing resources that facilitate psychological detachment, and creating organisational climates that either respect or undermine personal boundaries. This indirect influence, while powerful, may be less immediately reflected in statistical analysis than more proximal factors.

The relative influence of these three predictors can be understood through the JD-R model. Within this theoretical framework, digital technology usage primarily functions as a job demand in the context of Sarawak's transformation, as it requires adaptation, increases information processing requirements, and can extend work beyond traditional boundaries. In contrast, managerial support and psychological detachment serve as resources that buffer against these demands, although they operate at different levels (i.e., organisational and personal). This highlights the importance of integrating recovery processes more explicitly into the JD-R framework.

4.5 Conclusion

This study offers a comprehensive framework for understanding and managing work-life conflict in digitally transforming environments. Digital technology usage increases work demands and conflict, while managerial support and psychological detachment serve as crucial resources to mitigate strain. Psychological detachment, identified as the strongest predictor, underscores the vital role of recovery in maintaining work-life balance.

The findings of this study offer important practical implications for the field of organisational behaviour and human resource management in the public sector. The dynamics observed in Sarawak's digital transformation highlight broader challenges faced by organisations globally, as the shift toward digital service delivery involves more than the adoption of new technologies. Employees must learn new systems, adapt to changed workflows, and manage citizen expectations during transition periods. These demands, which require employees to connect continuously, if left unmanaged, spill into personal life through rumination, anticipatory stress, and extended problem-solving. This highlights the critical role of psychological detachment in sustaining work-life boundaries. The intensity of digital adoption, whether in Sarawak's public sector or in private organisations worldwide, increases the risks of technostress, connectivity pressure, and blurred boundaries, which directly exacerbate work-life conflict.

By situating these findings within the context of global digital transformation, this study contributes to the body of knowledge on work-life conflict emphasises the universal need for strategies that protect employees' ability to detach from work while supporting successful technological implementation. In this regard, the success of Sarawak's civil service

transformation depends not only on technology but also on cultivating individual skills and organisational practices that reinforce healthy boundaries between work and personal life. A key element of this balance is promoting psychological detachment by helping employees switch off from work during non-working hours through supportive policies (e.g., introducing clear after-hours communication guidelines) and managerial practices (e.g., managers actively validate boundaries and model healthy detachment behaviours). By promoting such practices, employees can better manage work-life conflict, ensuring that digital transformation enhances both operational effectiveness and overall quality of life.

Despite these contributions, several limitations should be acknowledged. The cross-sectional nature of our data prevents causal inferences regarding relationships between variables. Our measurements focused primarily on general practices rather than specific strategies, which may have limited their practical applicability. Additionally, potential interaction effects among predictors were not fully explored in our current analysis, and cultural factors unique to Sarawak may influence how technology, managerial support, and psychological detachment interact in practice.

Building on the current findings, future research should adopt longitudinal designs to establish causal relationships and track how changes in detachment practices and work-life conflict evolve across different phases of digital transformation. Academic researchers should examine which detachment strategies are most effective within digitally transformed work environments and how these might vary depending on job roles, personality factors, or the intensity of technology use. Studies should also explore organisational policies, leadership behaviours, and technological design features that collectively create environments conducive to detachment. Comparative studies across sectors and regions could further clarify the universality versus context-specificity of these dynamics. In addition, developing more nuanced measures of digital technology usage would better capture the complexity of technology engagement in contemporary work environments. Examining potential interaction effects, such as the moderating role of managerial support in the relationship between technology usage and psychological detachment, would enrich the understanding of these processes.

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AUTHOR CONTRIBUTIONS

The first author, a final year project student, was primarily responsible for undertaking the data collection and performing the analyses. The second author conceived the study idea, designed the research framework to guide the final-year project, and took the lead in drafting and refining the manuscript. The second author also serves as the corresponding author. Both the first and second authors contributed to interpreting the results, discussing the theoretical and practical

implications, and ensuring the overall accuracy and coherence of the manuscript. The third author provided further refinement of the manuscript to strengthen its clarity and presentation. All authors have read and approved the final version of the manuscript.

CONFLICT OF INTEREST

The authors declare that there are no conflicts of interest related to this study.

DATA AVAILABILITY STATEMENT

The datasets analysed are available from the corresponding author upon reasonable request. To protect participant confidentiality, access will be granted under conditions that comply with UNIMAS ethical guidelines.

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