Exploring the Determinants of Cyberloafing in the Workplace: A Conservation of Resources (COR) Perspective[†]

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Abstract

Over the decade, several researchers have proposed different models for explaining the cyberloafing behaviours. It includes perceived justice (Lim, 2002), ego-depletion model of self-regulation (Baumeister, Muraven, & Tice, 2000; Wagner, Barnes, Lim, & Ferris, 2012), personal impulsivity traits (Everton, Mastrangelo, & Jolton, 2005) and self-control management (Restubog et al., 2011). In this study, we will adopt the conversation of resource theory (COR; Hobfoll, Halbesleben, Neveu, & Westman, 2018) to examine the determinants of cyberloafing. We have collected from 210 full-time working adults aged over 18 years old who have access to the internet in their workplace. The data was collected through an online survey from Taiwan using the snowballing method (Streeton, Cooke, & Campbell, 2004) in various industries. Our result reveals that job burnout, psychological well-being and work-life balance may be the potential determinants for the employee to cyberloaf their work. This study further reviews the company policy for reducing the work burnout rather than restricting the behaviour of cyberloafing in the workplace according to the COR theory (Hobfoll, 1989; Hobfoll, Halbesleben, Neveu, & Westman, 2018; Hobfoll, Lilly, & Jackson, 1991).

Keywords: job burnout, psychological well-being, work-life balance, cyberloafing

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1. Introduction

Due to the advancement of technology, the use of the internet in the workplace is increasing. This increment of internet usage rises the concerns of senior management of the organisation when employee using their working hour to do personal stuff in which their immediate supervisor would classify this task as "non-work related", which is called "cyberloafing" (Askew et al., 2014; Henle et al., 2009). Previous literature point both positive and negative consequence of cyberloafing. For example, Pindek, Krajcevska, and Spector (2018) found that participants engage in cyberloafing to cope with workplace boredom. In contrast, Spector and Jex (1988) suggest that cyberloafing is harmful to organisation and organisation stakeholders by improperly using their company resources. Among those consequences of cyberloafing in the workplace, either it has positive or negative, the determinants of cyberloafing are still unknown (Henle & Blanchard, 2008; Hussain, Thurasamy, & Malik, 2017; Koay, Soh, & Chew, 2017; Vitak, Crouse, & LaRose, 2011). Therefore, our study aims to explore if there is any potential determinants lead to cyberloafing development in the workplace. Cyberloafing behaviour can be impacted by cultural factor (Ugrin, Pearson, & Nickle, 2018). Therefore, we will explore these determinants using the working adults in Taiwan, representing the Asian/ Taiwan culture.

Meanwhile, job burnout refers to the individuals "proceed with a feeling of energy exhaustion, by increasing mental distance from the job (negativism or cynicism) and reducing professional efficacy." (World Health Organization, 2019). Previous studies have made a valuable contribution by using conservation of resources (COR) theory to explore the antecedents and outcomes of stress and job burnout in an organisation (Hobfoll et al., 2018). According to the conversation of resource (COR) theory, it is suggested that employee is more likely to receive adverse outcome adversely is "an actual resources loss, a perceived threat of resources less, or a situation". When the resources are perceived as inadequate to meet work demand or not obtained on investment (Hochwarter, Perrewé, Meurs, & Kacmar, 2007), hence, this paper aims to propose and examine two mediators are adopted in the relationship between job burnout and cyberloafing: psychological well-being and work-life balance. Our study explored the sequential mediating effect of psychological well-being at work-life balance in the relationship between job burnout and cyberloafing.

In this study, we attempt to contribute to the COR model, burnout, and cyberloafing literature in several ways. First, we attempt to view the determinants of cyberloafing using the conceptualisation of COR in the Taiwan population. It extends recent findings on the antecedents' factors about cyberloafing. Second, we argue that two mediators exist in the pathway from job burnout to cyberloafing: psychological well-being and work-life balance in the Taiwan population.

2. Theoretical Framework

2.1. The conservation of resources (COR) theory

The COR theory is defined as "objects, personal characteristics, conditions, or energies that are valued by the individual or that serve as a means for attaining these objects" (Hobfoll et al., 2018). To begin with, the fundamental principle of the COR theory states that people strive to maintain, protect, and build resource because eustress depends on gaining value in the own right and serve as a means to an end and distress on their loss (Hobfoll, 1989; Hobfoll et al., 2018; Hobfoll et al., 1991). It is commonly referred to the stress, such as negative response to stressors, negative affectivity and more. In other words, eustress is defined as the positive response to adversity and is reflected in the presence of positive affect and well-being (McGowan, Gardner, & Fletcher, 2006; Watson, Clark, & Tellegen, 1988). Hobfoll et al. (2018) suggest four basic principles for the COR theory. First, the resource loss is out of proportion to be more notable than resource gain, referred to as "primacy of loss principle". Second, people are more willing to invest resources to protect from resources loss, recover from losses and gain resource, which can be referred to as "resources investment principle". Third, the "gain paradox principle" refers to the condition that resource gain increases in salience in the context of resources loss. Finally, when people's resources are outstretched or exhausted, they enter a defensive mode to preserve the self which is often defensive, aggressive and maybe irrational, called "desperation principle" (Hobfoll et al., 2018).

Hence, under the COR theory, we argue that job burnout can lead to a loss of physiological and psychological depletion (i.e., "primacy of loss principle"), in which the failures of resource in that depletion is faster than that of gaining resources (Wright & Hobfoll, 2004). In other words, job burnout is most likely to occur in situations where there is an existing resources loss, perceived threat of resources loss, or when the anticipated returns are not obtained on investment of resources (Hobfoll & Wells, 1998; Lee & Ashforth, 1996). Therefore, people under job burnout are likely to go through principle two (i.e., the "resources investment principle"), it can be done by a direct replacement of resources and indirect replacement of resources (Hobfoll et al., 2018). In this study, we argue that cyberloafing is a direct replacement of resource since people can gain some resources, such as social support from others outside the organisation, learning new things by the indirect investment of resources (Gökçearslan, Uluyol, & Şahin, 2018).

In principle three, it appeals more dominant for resource gain than resource loss. We argue that it encourages employees cyberloafing during the workplace since it helps them gain resource back in a more prevalent way (Pindek et al., 2018). According to principle four of COR theory, individuals feel

more challenging to reserve their resource and be more defensive and irrational if the resource depletion goes to a more extreme and intense level (Hobfoll et al., 2018). We posit that cyberloafing leads to adverse effects for the individual (Ozler & Polat, 2012). We also argue that such defensive and irrational thinking modes can increase the likelihood of cyberloafing of employees more frequently and seriously. People are so irrational that cyberloafing harms psychological well-being and work-life balance.

2.2. Cyberloafing

The use of internet resources in organisations is increasing; they are now integrated as part of the job context of the employee, which it can enhance the working efficiency, make communication more efficient and increase the productivity of employees (Anadarajan, Simmers, & Igbaria, 2000; Baturay & Toker, 2015). However, some scholars hold different views on cyberloafing. Some employees also grab this chance to take a break in their work by cyberloafing at work. Therefore, Askew et al. (2014) define cyberloafing as a set of behaviour. An employee engages in the electronically-mediated activities, particularly through the use of the internet, that their immediate supervisor would not consider job-related (Askew et al., 2014). Besides, the issue of cyberloafing is controversial, whether it is beneficial or harmful to individual and organisations (Betts, Setterstrom, Pearson, & Totty, 2014; Kidwell, 2010; Qiaolei, 2014). Some scholars suggest that employees can attenuate job stress and anxiety and stimulate creativity (Beugré & Kim, 2006; Oravec, 2002). Contrastively, other scholars argue a negative association between cyberloafing and work productivity (Zakrzewski, 2016). Research has linked the antecedent of cyberloafing to problematic internet use as a form of internet addiction (Kim & Byrne, 2011; Ozler & Polat, 2012). Instead of taking a psychopathological approach, we argue that the COR theory can explain the antecedents (i.e., cyberloafing behaviour).

3. Hypothesis Development

3.1. Job burnout and cyberloafing

The negative consequence of job burnout has been identified in many OB researchers (Burke & Deszca, 1986; Cordes & Dougherty, 1993; Halbesleben & Buckley, 2004; Maslach & Leiter, 2016). Defined by the World Health Organization, job burnout is characterised by unmanaged chronic workplace stress (World Health Organization, 2019). Accordingly, Maslach and Jackson (1984) categorised burnout into three dimensions – emotional exhaustion, depersonalisation, and diminished personal accomplishment.

According to COR theory, individual stive to obtain and maintain what they prize or value – resources. It recognises the importance of individual motivation in the burnout process. To be more specific, a key motivational decision involves how employees acquire, maintain, and foster the necessary resource to meet their current work demand and help guard against further resources depletion (Wright & Hobfoll, 2004). Therefore, emotional exhaustion happens when employees feel that they no longer have the necessary emotion, personality, social or status resources to predict, understand and control the stress confronting them (Hobfoll, 1989; Lee & Ashforth, 1996; Sutton & Kahn, 1986; Tetrick & LaRocco, 1987; Wright & Hobfoll, 2004). Similarly, depersonalisation and diminished personal accomplishment can also be viewed as an attempt to minimise the emotional resource loss that results from the constant need to solve intense work situations (Wright & Hobfoll, 2004). Furthermore, once these loss cycles are initiated, it makes the loss of individual decreasingly resilient resources to confront the inevitable continuation of demands (Hobfoll & Wells, 1998). Hence, we argue that once the loss cycle is started, individuals would seek an external resource to invest or recover from resource loss, and therefore, cyberloafing can be one of the ways for doing this.

By definition, cyberloafing refers to workplace behaviour's deviance, whereas "employees intentionally waste time and resources on non-work-related tasks". (Lim, 2002). Therefore, we argue that cyberloafing behaviour is an interaction of company resource and environment factors, impacting psychological well-being and work-life balance (Goh, Ilies, & Wilson, 2015; Mandeville, Halbesleben, & Whitman, 2016; Rofcanin, Heras, & Bakker, 2017). Cyberloafing is a dynamic behaviour (Halbesleben, Neveu, Paustian-Underdahl, & Westman, 2014). According to the "gain paradox principle", it is much easier for employees to gain or invest their resources (Hobfoll et al., 2018). We argue a positive relationship between all three dimensions of job burnout (i.e., emotional exhaustion, depersonalisation and reduced person accomplishment) and cyberloafing.

Putting all of these together, we can summarise that, for emotional exhaustion, the COR theory suggests that the loss of resource leads to a negative emotion of an individual (Wright & Hobfoll, 2004). It is because the individual would be able to restore their resources by gaining or investing other resources from resources lost (Hobfoll et al., 2018). Besides, they would seek for resources recovery so that cyberloafing would be a way to prevent resources depletion and allow people to escape from reality to the digital world under the COR theory. The case is very similar in depersonalisation, where the COR theory suggests that depersonalisation involves the recognition to survive, and the individual must wisely choose strategies to conserve the available resources (Wright & Hobfoll, 2004). Again, cyberloafing would be a way for an individual to conserve the available resources suggested by the COR theory.

Furthermore, several scholars suggest that reduced personal accomplishment can result in a negative emotion similar to emotional exhaustion (Bandura, 1989; Buunk & Schaufeli, 1993; Maslach, 1993). Hence, we argue that individuals who reduce personal accomplishment would follow the same pathway as emotional exhaustion to restore or recover their resources under the COR theory. Hence, we propose,

Hypothesis 1a (H1a). Emotional exhaustion is positively related to cyberloafing.

Hypothesis 1b (H1b). Depersonalisation is positively related to cyberloafing.

Hypothesis 1c (H1c). Reduced personal accomplishment is positively related to cyberloafing.

3.2. The mediating role of psychological well-being between job burnout and cyberloafing

Proposed by Ryff (1985), there are six components of being psychologically well – "[maintain] a positive relationship with others, environmental mastery, autonomy, self-acceptance and purpose in life, and personal growth and development" (Ryff, 1985). For fulfilling basic psychological needs, people strive for a life of affiliation, intimacy, and contributing to one's community. (Renner & Birren, 1980; Ryff, 1985; Ryff & Keyes, 1995). Several researchers point out that job burnout has been linked to poor mental health, such as depression and anxiety (Abdi, Kaviani, Khaghanizadeh, & Momeni, 2007; Peterson et al., 2008; Tokuda et al., 2009), making a resource depletion and individuals' psychosocial resource depletion. Therefore, we expect a negative relationship exists between job burnout and psychological well-being.

According to the COR theory, job burnout causes a loss of resources, which lowers the level of psychological well-being (Hobfoll & Wells, 1998). Therefore, we hypothesise that employees with job burnout are more likely to motivate themselves to prevent further depletion of their psychosocial resources using cyberloafing. An employee with a higher level of job burnout is more likely to manifest their negative attribute towards the source of their job burnout, so that they are more emotionally and cognitively eager for resources recovery from the job burnout (Leiter & Maslach, 1988; Maslach, Schaufeeli, & Leiter, 2001) with six different dimensions of psychological well-being.

First, people who proceed with a positive relationship with others has "warm, satisfying, trusting relationships with others" (Ryff & Keyes, 1995). It helps mediate the loss of the resource by gaining support from others to maintain their resource under the COR theory and reduced the likelihood of cyberloafing. Second, people who proceed with environmental mastery can have a sense of mastery and competence in managing the environment (Ryff & Keyes, 1995). It facilitates to mediate the loss of

the resource by gaining support by gaining external support from others under the COR theory and reduced the likelihood of cyberloafing. Third, autonomy refers to an individual who is self-determining and independent and can resist social pressures (Ryff & Keyes, 1995). Under COR theory, these people proceed with more internal resources who are more likely to reserve more resources under the resource's investment principle. It helps mediates the loss of the resource by reserving more resources and reduces the likelihood of cyberloafing.

Fourth, individual with high self-acceptance, the purpose of life and personal growth, a positive attitude toward the self and feels positive for everything around them, feeling of continued development and being open to a new experience. They have goals in life and a sense of directedness (Ryff & Keyes, 1995). Under COR theory, these people proceed with these personality traits to persist in resource loss and help them maintain and invest more resources using the resource's investment principle. It helps mediates the loss of the resource by their personality traits and reduces the likelihood of cyberloafing. Hence,

Hypothesis 2a (H2a). Maintaining a positive relationship with others mediates the relationship between job burnout and cyberloafing.

Hypothesis 2b (H2b). Environmental mastery mediates the relationship between job burnout and cyberloafing.

Hypothesis 2c (H2c). Autonomy mediates the relationship between job burnout and cyberloafing.

Hypothesis 2d (H2d). Self-acceptance mediates the relationship between job burnout and cyberloafing.

Hypothesis 2e (H2e). Purpose in life mediates the relationship between job burnout and cyberloafing.

Hypothesis 2f (H2f). Personal growth and development mediate the relationship between job burnout and cyberloafing.

3.3. The mediating role of work-life balance between job burnout and cyberloafing

Work-life balance is a state of "balance between one's demands of both a person's job and personal life are equal" (Kanwar, Singh, & Kodwani, 2009). Several studies argue that high engagement, high workloads, and increased work responsibilities can lead to difficulty balancing life and work (Aziz & Cunningham, 2008; Aziz & Zickar, 2006; Bonebright, Clay, & Ankenmann, 2000). Hayman (2009) has classified work-life balance into three categories – work interference with personal

life (WIPL), personal life interference with work (PLIW) and work / personal life enhancement (WPLE).

Under the COR theory, both work-life balance and job burnout are physiological and psychological deletion of work resources; therefore, a negative relationship is expected under this model (Hobfoll et al., 2018). Increasing of work-life imbalance, an individual has a psychosocial depletion in their support. Again, cyberloafing can facilitate the resources recovery process using the "gain paradox principle" (Hobfoll et al., 2018). Therefore, we proposed that an individual who is work-life balance can have a clear separation of their work-life engagement, involvement and embeddedness (Hallberg & Schaufeli, 2006; Maslach & Leiter, 2006; Meyer & Allen, 1997). It helps establish a clear boundary between work and person life. Hence, we expected a negative relationship exists between work/ life balance and cyberloafing. Besides, according to the desperation principle of COR theory, a higher level of job burnout can lead to a greater level of resources lost. Using this principle, we can assume that an individual's behaviour would be more irrational and aggressive, facilitating the diffusion of work-personal life boundary. Thus, we expected a negative relationship between job burnout and work-life balance. Hence, we propose,

Hypothesis 3a (H3a). Work interference with personal life (WIPL) mediates the relationship between job burnout and cyberloafing.

Hypothesis 3b (H3b). Personal life interference with work (PLIW) mediates the relationship between job burnout and cyberloafing.

Hypothesis 3c (H3c). Work/ personal life enhancement (WPLE) mediates the relationship between job burnout and cyberloafing.

3.4. Sequential mediation of psychological well-being and work-life balance

Many organisations, nowadays, expect employees to use remote-based technology, such as instant message, intranet or e-mail communication, to keep in touch during office and non-office hours (Vernon, 2005). However, such a negative impact on such policy has been reported in a previous study from Hilbrecht, Shaw, Johnson, & Andrey (2008). Also, Kossek, Lautsch, and Eaton (2006) suggest that a separated boundary between work and the non-work environment is essential for the employee to develop a more positive psychological well-being. Besides, employees would find it difficult to manage the boundaries between work and family. People with a high level of psychological well-being are more willing to get involved in their work during non-office hours (Kossek, Ruderman, Braddy, & Hanum,

2012). Such behaviour makes the boundaries between work and non-work diffuse, and it would lead to work-life imbalance.

Besides, psychological well-being can facilitate personal autonomy and establish a positive relationship with others (Renner & Birren, 1980; Ryff, 1985; Ryff & Keyes, 1995). It also helps to make the individual a higher autonomy for themselves. People with these personality traits are more capable of striking a balance between work and non-work-life (Kowalski & Swanson, 2005). Therefore, the following hypotheses are drawn.

Hypothesis 4 (H4). Job burnout partially affect cyberloafing, through exists psychological well-being and work-life balance to cyberloafing.

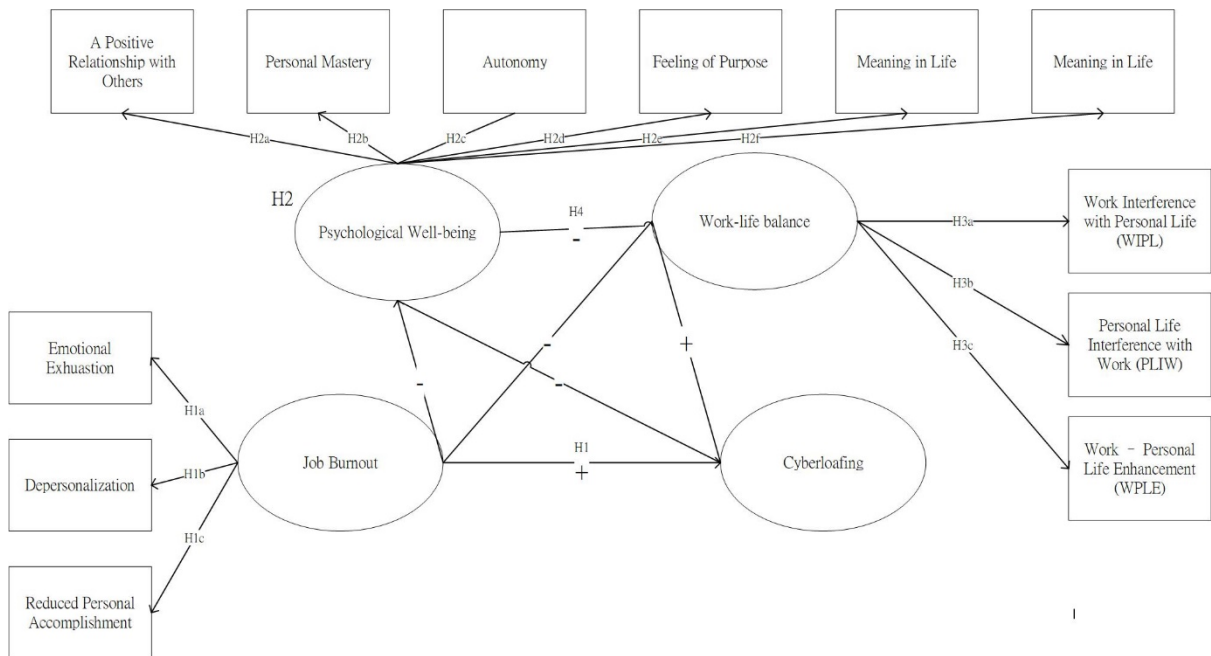The proposed model is illustrated below.

Figure 1 The Proposed Model

4. Method

4.1. Sampling

Data were collected from full-time working adults aged over 18 years old with access at work to the internet through an online survey from Taiwan via the snowballing method (Streeton, Cooke, & Campbell, 2004). Before the administration, the participants indicated their age and job duration that involved working with a computer. Any missing response upon completion of the survey was discarded to avoid wrong values. There are 213 participants completed the survey, and three was taken out due to missing data. In total, 210 participants were collected from the survey, and the characteristics of the participant were reported in Table 1. In summary, 210 working adults participated in this study with 41 male (M_{age} = 43.95, SD_{age} = 10.53) and 169 females (M_{age} = 46.6, SD_{age} = 10.56).

Table 1 Demographic statistics of the sample

Variable	Item	Frequency	Percentage
Gender	Male	169	80%
	Female	41	20%
Age	18 – 30	36	17%
	31 – 40	39	19%
	41 – 50	50	24%
	51 – 60	71	34%
	> 61	14	6%
Education Level	Primary	2	1%
	Secondary	29	14%
	Bachelor	141	67%
	Master	37	18%

4.2. Measures

Cyberloafing

Cyberloafing was measured using a 22-item scale developed from (Henle & Blanchard, 2008). We assessed on a five-pointed scale from (1) Rarely to (5) Always. We followed the scaling procedure from Henle & Blanchard's (2008), they eliminated the items by frequency of how they engaged in cyberloafing. Finally, we selected the 11 item, which is the highest frequency, and the reliability is

acceptable. Sample questions include "e.g., Received non-work-related e-mail" and "e.g., Shopped online for personal good". The scale has shown adequate levels of internal consistency (α =.91)[4].

Job Burnout

Maslach Burnout Inventory was a 22-item scale, consisting of three subscales: Emotional exhaustion (e.g., "I feel emotionally drained from my work."), Depersonalisation (e.g., "I worry that this job is hardening me emotionally.") and Reduced in personal accomplishment (e.g., "I feel very energetic."). It is a 7-point Likert-scale from 1 (a few times a year) to 6 (every day). A place is provided for the respondent to check "never," if the feeling or attitude described is never experienced (Maslach & Jackson, 1981). The subscale has shown adequate internal consistency levels (α =.77~84) (Lee, Chien, & Yen, 2013). The internal consistency was high (α =.90).

Work-life balance

The Quality of Work-life developed by Hayman (2009) was used in this study. It is a 15-item scale with a 5 point Likert-scale to measure the frequency of experience certain feelings (e.g., "I lost the balance between work and non-work") from 1 (never) to 5 (always). Hayman's (2005) 's three-factor analysis was adopted: work interference with personal life (WIPL), personal life interference with work (PLIW), and work-personal life enhancement (WPLE). Each subscale has excellent internal consistency from α=.79-.86. The reliability was acceptable (α =.83).

Psychological Well-being

Ryff (1989) 's 18-item for psychological well-being with a 7-pointed Likert-scale from 1 (extremely agree) to 7 (extremely disagree) was used on the description of personal feelings (e.g., When I look at the story of my life, I am pleased with how things have turned out.). There are six subscales with Psychological well-being (Ryff, 1989). The reliability of our sample was between α =.60 and α =.87. Since Ryff and Keyes (1995) and Li and Chung (2006) concluded that the Cronbach's alpha with a score higher than .60 could be considered acceptable, we considered that this scale's reliability was acceptable.

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[4] Cronbach's alpha (α) is a measure of internal consistency, that is, how closely related a set of items are as a group. It is considered to be a measure of scale reliability. A "high" value for alpha does not imply that the measure is unidimensional.

4.3. Control Variables

The control variables were gender (Blanchard & Henle, 2008), age group (Betts et al., 2014) and education level (Akbulut, Dönmez, & Dursun, 2017) to prevent potential confounding effect in the analysis. The coding for gender was female = 2, male = 1; age was 18 -30 = 1, 30 – 40 = 2, 41 – 50 = 3, 51 – 60 = 4, over 65 = 5. For time spent on cyberloafing in work, the coding was 0% – 10% = 1, 11 – 20% = 2, …, 91% - 100% = 10. For education level, coding was 1 = primary level, 2 = secondary level, 3 = Bachelor Degree, 4 = Master Degree, and 5 = Doctorate Degree.

4.4. Common method variance

Since all data collected was self-report measurement tools using the survey conducted in a specific period, the validity of common method variance was examined (Podsakoff & Organ, 1986). First, Harmon's single-factor test was used to investigate the possible influence of common method variance (Podaskoff, MacKenzie, & Podakoff, 2012). A principal axis functioning with no rotation was performed to examine if a single method factor explained most of the variance. There were six factors with eigenvalues greater than 1.00 observed explaining 79.1% of cumulative variance. Besides, the first factor accounted for 15.3% of the variance. It was concluded that the common method variance did not pose a validity threat.

4.5. Reliability and validity

The Cronbach alphas measurement was adopted to measure the reliability of the multi-item scale for each dimension. All variables were above the recommended minimum standard of .70 (Nunnally, 1978). It was summarised in Table 2.

Besides, the construct validity was tested using Mplus 7.4 (Muthén, Muthén, & Asparouhov, 2017). A four-factor model (cyberloafing, burnout, psychological well-being and work-life balance) with all item loading on the respective factor with an alternative model. The discriminant validity of the four variables was tested by contrasting the baseline model against alternative models. We have tested the χ^2 difference ($\Delta\chi^2$) test (Bagozzi, Yi, & Phillips, 1991; Bentler & Bonett, 1980). The result showed that the four-factor model had the best fit than other models (i.e., from one-factor model to three-factor model), χ^2 = 377.293, df = 201, Comparative Fit Index (CFI) = .921, Tucker-Lewis Index (TLI) = .910, Root Mean Square Error of Approximation (RMSEA) = .065, Standardized Root Mean Square Residual (SRMSR) = .070, and fit the data better than alternative models These figures were reported in Table 3. Overall, this Confirmatory Factor Analysis (CFA) confirmed that all measures refer to distinct constructs.

Table 2 Measurement dimension and Cronbach alpha

Construct	Dimension	No. of items	Cronbach's alpha (Dimension)	Cronbach's alpha(Construct)
Cyberloafing		11		.91
Burnout	Emotional exhaustion	9	.91	.90
	Depersonalization	5	.89	
	Reduced personal accomplishment	8	.87	
Psychological Well-being	Self-acceptance	3	.84	.93
	Purpose in life	3	.87	
	Environmental mastery	3	.70	
	Positive relations with others	3	.73	
	Personal growth	3	.81	
	Autonomy	2	.60	
Work-life Balance	WIPL	6	.79	.83
	PLIW	4	.79	
	WPLE	4	.86	

Table 3 Results of confirmatory factor analysis

	χ^2	df	CFI	TLI	SRMR	RMSEA
Models						
4-Factor Model	377.293	201	0.921	0.910	0.070	0.065
3-Factor Model	455.492	204	0.888	0.873	0.088	0.077
2-Factor Model	1025.452	206	0.634	0.590	0.150	0..138
1-Factor Model	1108.806	207	0.598	0.551	0.154	0.144

Note: N = 210. χ^2= chi-square CFI = Comparative Fit Index ; TLI = Tucker-Lewis Index ; SRMR = Standardized Root Mean Square Residual; RMSEA= Root Mean Square Error of Approximation.

5. Result

The Correlations of each subscale are reported in Table 4. These figures indicated that a significant positive correlation between cyberloafing and job burnout was observed. The Correlations between the study variables were in the expected direction, although some of the variables were not statistically significant.

Table 4 Descriptive statistics and correlation (N = 210)

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Gender															
2	Age	-.145*														
3	Education Level	-.115	-.056													
4	Cyberloafing	-.204**	-.049	.025												
5	Emotional Exhaustions	.006	-.037	-.026	.173*											
6	Depersonalisation	-.118	-.005	-.039	.168	.801**										
7	Reduced Personal Accomplishment	-.055	.052	.205**	.133	.085	.002									
8	Self-Acceptance	-.032	-.206**	-.126	-.157*	-.034	0.54	-.416**								
9	Purpose in Life	-.094	-.221**	-.139*	-.071	-.078	.096	-.490**	.728**							
10	Environmental Mastery	-.082	-.143*	-.089	-.022	-.098	-.010	-.365**	.645**	.679**						
11	Positive Relation with Others	-.052	-.102	-.010	-.103	-.063	.076	-.260**	.494**	.491**	.522**					
12	Personal Growth	-.134	-.048	-.145*	-.063	0.27	.184**	-.363**	.612**	.674**	.615**	.578**				
13	Autonomy	-.073	-.017	-.026	-.136*	-.050	.008	-.229**	.485**	.437**	.551**	.496**	.466**			
14	Work Interference with Personal Life (WIPL)	-.070	-.004	-.070	.220**	.328**	.209**	-.010	.008	.014	.141*	-.019	.032	.030		
15	Personal Life Interference with Work (PLIW)	-.040	.119	-.073	.190**	.321**	.262**	-.073	.068	-.090	.054	-.027	.030	.025	.505**	
16	Work/ Personal Life Enhancement (WPLE)	-.015	.065	.042	.126	-.211**	-.253**	.253**	-.214**	-.267**	-.176*	-.227**	-.269**	-.040	.256**	.141*

Note: **. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2 tailed).

For control variables, the gender had a relationship with cyberloafing in the correlation ($r = -.204$); therefore, it was taken out as a control variable. The finding demonstrated that men are more likely to cyberloafing their work than that for women. It demonstrated that cyberloafing is relatively gender-specific (Blanchard & Henle, 2008). It would be discussed in the later section. Contrasting with previous studies about age and education (Betts et al., 2014; Akbulut, Dönmez, & Dursun, 2017), our result reveals that an non-significant relationship between age and education level and cyberloafing ($r = -.049, r = .025, p = ns$ respectively). It showed that age and education level has no significant impact on cyberloafing, so that level of education and age have set to be the control variable of this study.

Hypothesis testing

We have performed a three-step analysis for testing the hypothesis using both IBM SPSS 24 PRCOSS Marco (Hayes, 2017) and MPlus 7.4 (Muthén, Muthén, & Asparouhov, 2017). In step 1, we tested the relationship of three different job burnout dimensions (Maslach et al., 2001) using structural equation modelling (SEM) in MPlus 7.4 (Muthén et al., 2017). From hypothesis H1a to H1c, we expected a positive relationship between emotional exhaustion (H1a), depersonalisation (H1b), and reduced in personal accomplishment (H1c) and cyberloafing. The SEM result showed that relationship among emotional exhaustion, Depersonalization, and concentrated personal accomplishment were $\beta = .0683, p < .05, \beta = .0766, p < 0.05$ and $\beta = .0309, p = n.s.$ respectively[5]. From the result, we could conclude that H1a and H1b were supported. For H1c, although the p-value was not significant, the work reflected a positive relationship. Thus, we concluded that H1c was not supported. The overall SEM model of our proposed model was shown on Figure 2.
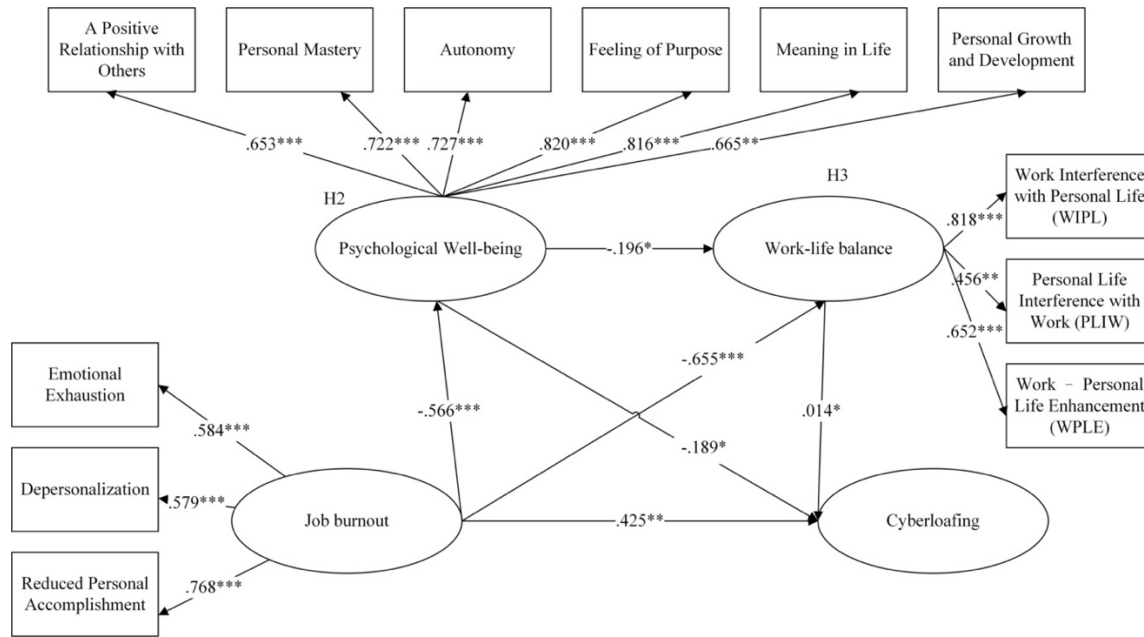
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[5] β refers to regression coefficient.

Figure 2 *The results of structural equal modelling of the proposed model.*

Note: ***. p < 0.001, **. p < 0.05, *. p < 0.1.

In step 2, we followed the Hayes PROCESS macro (Hayes, 2017). We applied to bootstrap to test the bias-corrected confidence interval (CI) to test our model's direct and indirect relationship from hypothesis H2a to H2f and from H3a to H3c. Similarly, we hypothesised six different psychological well-being dimensions proposed by Ryff and Keyes (1995) had a mediating role between job burnout and cyberloafing. We also hypothesised the three dimensions of work-life balance (Hayman, 2009) had a mediating role between job burnout and cyberloafing. The result of a formal two-tailed significant test showed in Table 5. From hypothesis H2a to H2f, our work showed that the beta value among positive relationship with others, environmental mastery, autonomy, self-acceptance, purpose in life and person growth lied between .1099 and .1283, p < 0.05, showing a significant direct effect between job burnout and psychological well-being. The indirect effect of psychological well-being between job burnout and cyberloafing was not significant ($B = .0095$, 95% $LLCI = -.0108$, 95% $ULCL = .0350$; *contain zero*). Form the result, we could conclude that a partial mediation (Loeys, Moerkerke, & Vansteelandt, 2015) existed in psychological well-being between job burnout and cyberloafing. Hence, we concluded that H2a – H2f were supported with a partial mediation effect existed (Maxwell, Cole, & Mitchell, 2011).

Similarly, our result showed that the beta value among the three sub-scale of work-life balance varied between .1004 and .1471 with a p-value less than 0.05. The result confirmed that the direct effect was significant. When exploring the indirect effect, a full mediation relationship (Loeys et al., 2015) existed ($B = .0246$, 95% $LLCI = .0004$, 95% $ULCL = .0534$; *did not contain zero*). Therefore, we concluded that H3a to H3c were supported.
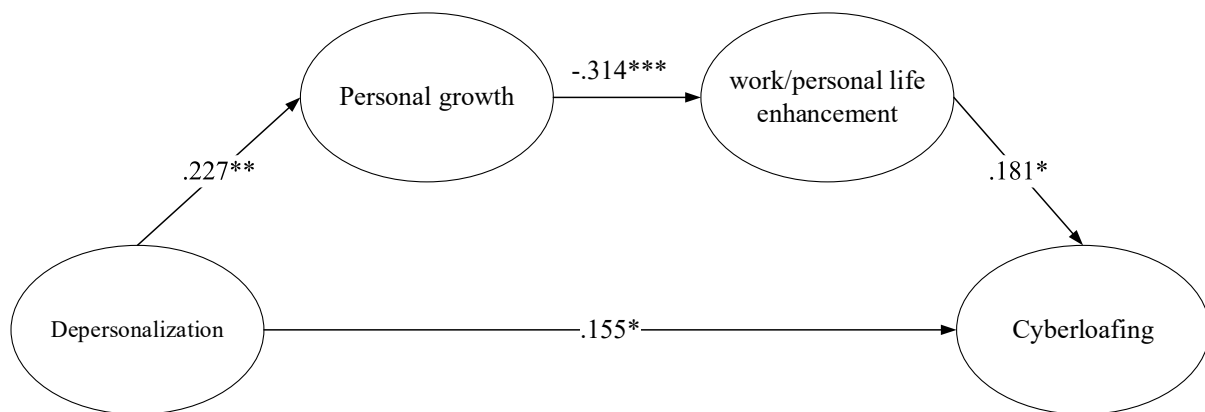
Table 5 Mediated regression analysis result

			B	*SE*	*T*	*P*	*LLCI*	*ULCI*
1	**Direct effect of job burnout and psychological well-being**							
	H2a	Positive Relationship	.1185	.0485	2.444	.0154	.0384	.1986
	H2b	Environmental Mastery	.1282	.0484	2.652	.0086	.0483	.2081
	H2c	Autonomy	.1153	.0479	2.406	.0170	.0361	.1944
	H2d	Self-Acceptance	.1120	.0474	2.365	.0190	.0338	.1903
	H2e	Purpose in Life	.1099	.0493	2.232	.0267	.0285	.1913
	H2f	Personal Growth	.1233	.0477	2.583	.0105	.0444	.2022
2	**Direct effect of job burnout and work-life balance**							
	H3a	Work Interference with Personal Life (WIPL)	.1004	.0496	2.308	.0441	.0185	.1823
	H3b	Person Life Interference with Work (PLIW)	.1141	.0494	2.308	.0220	.0324	.1958
	H3c	Work/ Personal Life Enhancement (WPLE)	.1471	.0490	3.002	.0030	.0661	.2280
3	**Bootstrap results for the indirect effect**							
			B	*SE*	*LL95% CI*	*UL95%CI*		
	Job burnout → Psychological well-being → Cyberloafing		.0095	.0140	-.0108	.0350		
	Job burnout → Work-life balance → Cyberloafing		.0246	.0166	.0004	.0534		

N = 210. Bootstrap sample size = 10,000

In step 3, we tested hypothesis 4 using the Structural Equation Modelling (SEM) by Mplus 7.4 (Muthén et al., 2017) to examine the indirect effect of the proposed model. We used subscale to examine the different indirect effect. There were 30 types of the direct effect of burnout subscale relative to psychological well-being subscale, work-life balance subscale and cyberloafing. There were 81 types of mediation model. Making the reporting precise, we decided to report the significant result only.

From the analysis, we found out that self-acceptance to cyberloafing mediated reduced personal accomplishment (IND = .07, $p < .05$)[6]. Given the effect of sequential, our result showed that the indirect effect between emotional exhaustion and cyberloafing via wok interference with personal life (WIPL) (IND = .08, $p < .05$) and personal life interference with work (PLIW) (IND = .07, $p < .05$). Meanwhile, such indirect relationship could also be found between depersonalisation and cyberloafing via wok interference with personal life (WIPL) (IND = .05, $p<.05$) and personal life interference with work (PLIW) (IND = .07, $p<.05$). Besides, the negative indirect effect included that work/ personal life enhancement (WPLE) mediated the cyberloafing with emotional exhausting (IND = - .04, $p < .10$) and depersonalization (IND = -.05, $p <.05$). The result of sequential mediation was shown below with indirect effect coefficient (IND = -.013, $p <.10$)
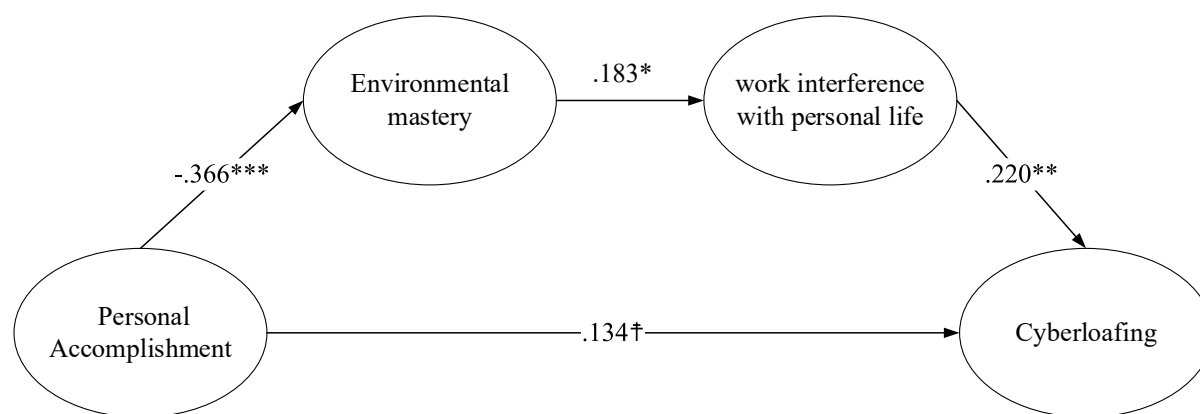

Note: N =210, * = p<.05, ** = p<.01, *** = p<.001, Estimate coefficients are standardization, only reveal significant result

Figure 3 Sequential mediation between Depersonalization and cyberloafing via personal growth and work/personal life enhancement

In the examination of personal accomplishment, environment mastery, work interference with personal life, and cyberloafing, we found those there was an indirect effect in these variables (IND = .015, $p<10$). We concluded that the mediation effect existed.

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[6] IND refers to indirect effect of the mediation.

Note: N =210, † = p<.10, * = p<.05, ** = p<.01, *** = p<.001, Estimate coefficients are standardization, only reveal significant result

Figure 4 Sequential mediation between personal accomplishment and cyberloafing via environment mastery and work interference with personal life

6. Discussion

First, the result of this study showed that age and gender could not be a control variable for examining the effect of cyberloafing in the workplace. It was found that men were more likely to cyberloafing their work than work. Besides, younger people were more likely to cyberloafing the work as well. Such a finding could be explained by gender difference in personality. It was suggested that men were more likely to display autonomous personality traits than women (Beck, 1983; McBride, Bacchiochi, & Bagby, 2005). It would be explained that men have shown more autonomy in their personality so that they demonstrated a higher degree of job autonomy to cyberloafing to invest resources to protect again resources loss (Hobfoll et al., 2018). For the age difference, it could be explained that younger generation had more opportunity to get in touch of information technology, creating a more favourable environment for time to invest their resources when there was burnout in their work (Hobfoll et al., 2018). These findings are consistent with other previous studies (Blanchard & Henle, 2008; Lim & Chen, 2012; Ono & Zavodny, 2003; Teo & Lim, 2000). This result could help explain COR theory by adding the consideration of gender difference and age difference.

Besides, previous scholars showed that there was a positive relationship between job burnout and cyberloafing (Aghaz & Sheikh, 2016; Durak & Saritepeci, 2019). However, our study demonstrated that only emotional exhausting was positively related to cyberloafing, neither reduced in personal accomplishment nor depersonalisation has the relationship to cyberloafing. Our explanation was, in the COR theory, these two components were not a significant resource depletion (Halbesleben et al., 2014; Hobfoll et al., 2018). Therefore, emotional exhaustion was the major source of resource depletion which triggered the cyberloafing to gain a resource for individuals.

Our findings have demonstrated that only "reduced in personal accomplishment" has was not statistically supported hypothesis H1c. We explained that reduced in personal accomplishment impacted

the ability to be well psychologically. Consisting of COR theory, individual treats personal achievement as a resource in the company (Wright & Cropanzano, 1998). It was because people would strike for the best to gain and invest more on this resource. As stated with COR theory, losing resource was much easier than that of gaining resources (Halbesleben et al., 2014; Hobfoll et al., 2018). It was the reason why only "reduced personal accomplishment" had a more significant impact on psychological well-being. Besides, both depersonalisation and emotion exhausted more relied on individuals' personality resources (Wright & Staw, 1999). Besides, a positive relationship was observed between Depersonalization and personal growth. We suspected that it was related to the individual's coping strategy (Ding Zhang, & Yang, 2018).

According to COR theory, both emotional exhaustion and reduced personal accomplishment trigger a resource loss, making individuals move vulnerable to aggressive and defensive (Halbesleben et al., 2014; Hobfoll et al., 2018). Besides, the relationship between job burnout and work-life balance was positively related to career satisfaction, impacting the work-life balance of individual (Keeton, Fenner, Johnson, & Hayward, 2007).

According to COR theory, people with reduced personal accomplishment was viewed as having a loss in the investment principle because they have invested their resources but in vain. According to the investment principle of COR theory, their investment of the practical resource was lost so that they had to find another way to "re-invest" the resource to restore their cognitive resource. To seek alternative pleasurable feelings, self-acceptance is a required personality trait for individuals for cognitive resource recovery (Krishnan, Lim, & Teo, 2010).

Furthermore, our result showed that both emotional exhaustion and Depersonalisation would positively impact work in personal life and personal influence work. Using the COR theory, the desperation principle implied that individuals with a loss in their resource would undergo aggressive, defensive, and irrational behaviour under stressful situation (Halbesleben et al., 2014; Hobfoll et al., 2018). Thus, a positive effect was expected from the data. Using gain paradox principle, resource loss's magnitude and time were much slower than that of resource gain. Since emotion exhaustion and Depersonalisation was not an organisation resources, we expected that there was a negative relationship between these factors with work personal life enhancement (Hobfoll, 1989; Hobfoll et al., 2018; Hobfoll et al., 1991). To explain the rationale for the mediation of work-life balance between the relationship of job burnout and cyberloafing, the primacy of loss principle is adopted. Loss of resources was faster than the gain of resources; therefore, work-life balance was unable to mediate the relationship between job burnout and cyberloafing (Halbesleben et al., 2014; Hobfoll et al., 2018).

Further, from our result, we found that the sequential relationship between job burnout and cyberloafing existed via the sequential mediating role of psychological well-being and work-life balance. However, when we tried to explore the further every factor structure of job burnout, psychological well-being and work-life balance, we found that not all the factors could formulate the sequential mediating relationship. For example, environmental mastery and work interference with

personal life sequentially mediated the relationship between reduced personal accomplishment and cyberloafing. Using investment principle, individual with reduced personal accomplishment had to seek for investing new resources, such as environmental mastery as a coping strategy. When this approach was not successful, it would lead to a work interference with personal life due to the primacy of loss principle. Finally, using desperation principle, individuals felt and behaved negatively for cyberloafing (Halbesleben et al., 2014; Hobfoll et al., 2018).

Another example, personal growth and work and personal life enhancement sequentially mediated the relationship between the depersonalisation and cyberloafing. Using investment principle, the individual with depersonalisation had to seek for investing new resources, such as personal growth as a coping strategy. When this approach was not successful, it would lead to work and personal life enhancement due to desperation principle. Finally, using investment principle, individuals seek a new resource, such as cyberloafing (Halbesleben et al., 2014; Hobfoll et al., 2018).

Theoretical Implication

Our study examined the sequential mediating effect of psychological well-being and work-life balance in the relationship between job burnout and cyberloafing. Our empirical study showed that two pathways were using the COR theory to explain the sequential mediation effect of the relationship between job burnout and cyberloafing. Therefore, the individual who has a higher level of job burnout might have more psychological resources to deal with resources depletion to facilitate the resources recovery so that they can be able to utilise the resources in work and complete the work task during the work. (Hobfoll et al., 2018).

Besides, our result has shown that gender demonstrated a difference in cyberloafing behaviour. It would be explained that men have shown more autonomy in their personality to demonstrate a higher degree of job autonomy to cyberloafing to invest resources to protect resources loss (Hobfoll et al., 2018) again. These findings are consistent with other previous studies (Blanchard & Henle, 2008; Lim & Chen, 2012; Ono & Zavodny, 2003; Teo & Lim, 2000). This result could help explain the COR theory by adding the consideration of gender difference.

Practical Implications

A study on the impact of cyberloafing and its internet policy across different cultures and its impact on Psychological well-being and work-life balance is highly recommended. First., this study contributed to the management field that job burnout was necessary when the employees cyberloafing their work. According to the COR theory, further reviewing the company policy for reducing the work burnout was required rather than restricting the behaviour of cyberloafing in the workplace (Hobfoll, 1989; Hobfoll et al., 2018; Hobfoll et al., 1991). Besides, the employee's psychological well-being needs should be considered by management. By increasing the level of psychological well-being via company policies, such as reducing the nature of social isolation of work, increasing the face-to-face contract can help the employee gain a sufficient psychosocial resource during their work. Hence, they

can be more focused on their present work, making cyberloafing less likely to happen (Grant & Polak, 2013).

Finally, the importance of work-life balance was stressed here, since cyberloafing create a diffused boundary between work and non-work time (Kowalski & Swanson, 2005). Hence, a review of company internet policy was recommended to prevent employee cyberloafing during their work on one hand. On the other hand, they can be "free" out of work time by stopping granting access to the company's e-mails, intranet.

7. Limitation and Future Research

The studies are subject to several limitations that can be addressed in future research. The first limitation was that the cross-sectional data collected in our study did not provide evidence for the construct's temporal relations, and the data used in our study was self-reported. Also, it might affect the observed relationship between the measurement of our four variables. Future research needs to study each variable over a more extended period of longitudinal data can be adopted to assess the temporal effects of our study. Besides, our research design did not allow us to investigate the possibility of reverse causality among the study variables for job burnout and cyberloafing. However, our study's independent variable is a dispositional and stable construct. Thus, it is less reasonable to argue that the temporal state of burnout will influence employees' ability to manage resources. As such, reverse causality is less reasonable in our study. However, future research needs to study each variable over a longer period, or longitudinal data can be adopted to assess our study's temporal effects. Future research is suggested to investigate the reverse causality of the independent variables and dependent variables.

The second limitation was that our study's research design involved data collected from a single source. The standard method variance could not be ruled out as a possible explanation for the relationships among psychological well-being, work-life balance, job burnout and cyberloafing. Our study has arranged the variable randomly; some of our items from our variables' measurement are reversed. The purpose of this practice was to mitigate the concerns about the common method variance Future research with data collected from different sources, or temporal separation is needed to rule out the possibilities of common method variance (Peng, Kao and Lin, 2006). Furthermore, the results of Harman's one-factor test suggests that CMV did not pose a validity threat. Future research with data collected from different sources or temporal separation is needed to rule out common method variance (Johnson & Indvik, 2004).

The third limitation of our research was that we did not control a few factors related to cyberloafing and job burnout. Although controlling for several demographic and background variables did not change our results, we could not control for situational factors such as time spent on the cyberloafing.

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