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# *Exploring the Nexus between Supervisor Undermining and Cyberloafing: A potential Mediating role of Anger*

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***Keywords:***
*Supervisor undermining, Anger, Cyberloafing,*

***ABSTRACT***

Cyberloafing is the use of internet access for non-work related activities during scheduled working hours is becoming a notable challenge for contemporary organizations. Given its probable antecedents, supervisor undermining may be a factor that can influence employee cyberloafing behavior which has not received enough attention to date. The present study addressed this research gap by examining the direct and indirect association between supervisor undermining and cyberloafing via the potential mediating role of anger as well as to the efficacy of cyberloafing as a coping mechanism**.** This link was established on the theoretical tents of affective events theory (AET). The study employed 596 valid responses; conveniently collected from the employees working in the software houses of two major cities of Pakistan (i.e., Islamabad and Rawalpindi). The conceptual model was tested using structural equation modeling via AMOS software. The statistical results established a direct and indirect association between supervisor undermining and cyberloafing via anger. This suggests that exposure to supervisor-undermining behavior influences employee cyberloafing behavior as an effective coping strategy. The theoretical and practical implications of this study are discussed.

## INTRODUCTION

The adoption of digital technologies backed by the internet resources have irrevocably transformed the complex nature of work. Despite offering myriad advantages, the possibility of engaging in personal online activities under the guise of work-related usage may also be high (Zoghbi-Manrique-de-Lara, 2024), commonly referred to as cyberloafing. Cyberloafing is defined as "personal Internet use in the workplace" (Huma, Hussain, Thurasamy, & Malik, 2017, p. 98). Examples include; sending and receiving personal emails, playing online games, and reading blogs (Bhattacharjee & Sarkar, 2024). In this respect, Huth (2015) identified that

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on average, worker loses 60 hours per month, and 759 hours annually with chatty coworkers and distractions from phones. Likewise, advancements in personal internet use at work, pose a significant challenge to organizations, as employees spend their valuable time surfing non-work related activities which lowers both organizational productivity and overall job efficiency (Koay et al., 2022). Given that, the substantial cost associated with cyberloafing has garnered researcher's attention to recognize the driving factors of cyberloafing.

Prior literature on cyberloafing has identified that certain individual characteristics, such as demographic variables (Tandon, Kaur, Ruparel, Islam, & Dhir, 2022), internet addiction (Chen, Ross, & Yang, 2011), habit formation (Betts, Setterstrom, Pearson, & Totty, 2014), and low self-regulation (Prasad, Lim, & Chen, 2010) drives cyberloafing acts. To combat this, several control mechanisms have been implemented by the organizations, including internet usage policy (Siau, Nah, & Teng, 2002), blocking websites (Moody & Siponen, 2013), and imposing severe punishment while caught during these acts (Zoghbi Manrique de Lara, 2006). Unfortunately, such control mechanisms have failed to reduce cyberloafing acts among employees. Indicating that it may be influenced by certain organizational factors; organizational justice (Lim, 2002) and work stressors (Henle & Blanchard, 2008). Given the significant roles of interpersonal mistreatment in the workplace only a handful of studies on abusive supervision, workplace ostracism, and workplace aggression have addressed this phenomenon as a victim's coping response while facing such mistreatment at work (Andel, Kessler, Pindek, Kleinman, & Spector, 2019; Bhattacharjee & Sarkar, 2024; Koay, 2018), ignoring the fact that supervisor undermining can also influence cyberloafing acts.

Supervisor undermining "intends to hinder employees' ability to establish and maintain qualitative interpersonal relationships, work-related success, and favorable reputations" (Duffy, Ganster, & Pagon, 2002). These behaviors may include putting subordinates down while questioning work procedures and belittling or rejecting one's ideas (Duffy et al., 2002). Research has found that exposure to supervisor undermining results in dysfunctional work behaviors, such as work procrastination behavior (Jung & Yoon, 2022), and submissive behavior at work (Fatima, Majeed, & Jahanzeb, 2020). Ferris and Colleagues (2016), claim that workers frequently react to a supervisor's mistreatment by engaging in avoidance (flight) or retaliatory (fight) behaviors. Given the innate power imbalance in these kinds of relationships, we believe that workers might favor avoidance coping behavior to reduce their exposure to unpleasant stimuli and guard against possible relational damage, where cyberloafing is the best strategy to opt against the supervisor undermining behavior. In addition

to this, the relationship between this negative supervisory treatment and resultant behavioral outcomes is incomplete without the mediational effect of employee negative emotions. Where anger is regarded as a powerful negative emotion triggered by negative work events.

We significantly advance the empirical literature on cyberloafing by identifying under what conditions employees opt for cyberloafing as a coping strategy. We address these central issues by identifying certain gaps that emanate from previous studies on cyberloafing. First, the phenomenon of cyberloafing as a coping mechanism has received scant attention in the previous literature (Bhattacharjee & Sarkar 2024; Pindek et al., 2018). Nonetheless, researchers highlight the importance of investigating the phenomenon of cyberloafing as a coping mechanism against interpersonal mistreatment at work (Henle, 2024). Addressing this, we examined how supervisor undermining can prompt victims to opt for cyberloafing acts. Perhaps nothing has a more profound influence on employee behavior than experiencing mistreatment from supervisor, as they have more control over work resources. Therefore, examining the link between supervisor undermining and cyberloafing will be beneficial in designing specific interventions to prevent such practices at work. Further, researchers have paid little attention to the mediating mechanisms of affective reactions to cyberloafing (Tandon et al., 2022). It is worth mentioning that affective reactions play a pivotal role in determining employee behavior. Theoretically, the phenomenon of cyberloafing has been mainly based on ego depletion theory (Baumeister, 2003) and conservation of resources theory (Hobfoll, 1989). However, these approaches limit the understanding of the emotional aspects that can stimulate cyberloafing (Tandon et al., 2022).

In light of the aforementioned gaps, the current study tested the association between supervisor undermining and cyberloafing via the meditation path of anger on the theoretical rationale of affective events theory (AET; Weiss & Cropanzano, 1996). We view supervisor undermining as an anger-eliciting event that evokes anger among the undermined employees, to which the resort through cyberloafing acts as an emotion-focused coping strategy. AET in particular suggests that employee behaviors mainly depend on the exposure to certain work events and the resultant emotional responses that these events create. The present study took a sample of employees working in software houses in the two metropolitan cities (Islamabad, and Rawalpindi) of Pakistan. The nature of work in a software house involves prolonged computer use, which makes employees susceptible to cyberloafing which is in line with the scope of the current study. To emphasize Younas and Colleagues' (2023) study has identified that the

cyberloafing phenomenon is prevalent among employees working in the different software houses of Lahore (Pakistan).

Overall, the research aims to identify supervisor undermining as a novel antecedent that can influence cyberloafing acts among undermined employees. Further, the study extends AET (Weiss & Cropanzano, 1996) into the interpersonal mistreatment domain while explaining supervisor undermining as a negative work event that affects undermined employees' emotional and behavioral responses. We argue that cyberloafing could opt for an emotion-focused coping strategy to maintain emotional equilibrium in response to supervisor-undermining behavior. The objective of the study was to highlight the social context and workplace factors (such as interpersonal mistreatment) that drive employees' cyberloafing acts. Finding strategies to minimize undermining behavior should undoubtedly be a priority. These efforts should be in line with zero-tolerance policies and may be strengthened by knowledge of the social context in which antisocial behaviors take place.

## HYPOTHESES DEVELOPMENT

### *Supervisor Undermining and Cyberloafing*

Supervisor undermining is the intended behavior to over time hinder the target's ability to maintain and retain qualitative interpersonal relationships, work-related success, and favorable reputation at work (Duffy et al., 2002). These acts typically manifested through behaviors like belittling one's ideas, making one feel incompetent, and passing disparaging remarks that entail both active (e.g., saying derogatory things) and passive (e.g., withholding important information) behaviors towards the target (Eissa, Chinchanachokchai, & Wyland, 2017). Retaliation is the natural tendency in response to this supervisory mistreatment (Aquino, Tripp, & Bies, 2006) however, due to power asymmetry victims suppress their urge of retaliation, due to fear of retribution and the likelihood of negative sanctions such as suspension and written warning may occur (Geddes & Stickney, 2011). Researchers believe that in such instances people either adopt an approach or avoidance coping mechanism; where approach coping behavior is more appropriate when employees have better control over work resources, whereas avoidance coping behavior is preferable to those employees who lack control (Roth & Cohen, 1986). Generally speaking, supervisor undermining causes stress, whereas cyberloafing may opt as a coping strategy to deal with ongoing stress (Andel et al., 2019). Based on the tenets of affective events theory we propose that supervisor undermining is a type of negative work event that hampers employees' ability to maintain and establish good interpersonal relationships, and subsequently leads to employee cyberloafing behavior. Supporting these

arguments, Fatima et al. (2020) using a Pakistani sample demonstrated that supervisor undermining promotes employee submissive behavior as a form of work avoidance behavior due to the difference of power between the perpetrator and the victim. Thus, we propose;

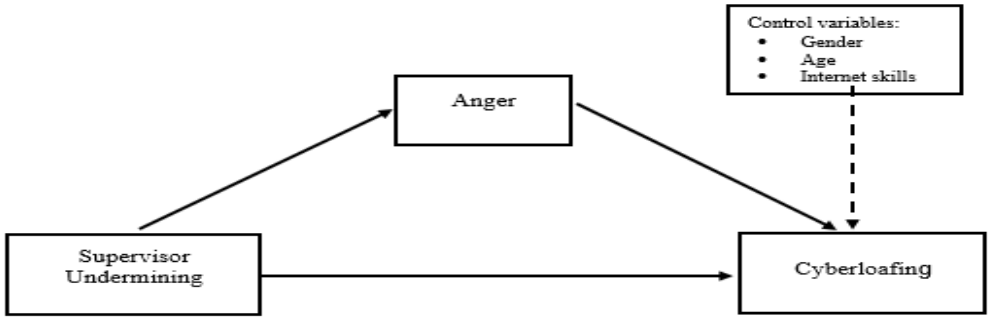
**H1:** *Supervisor undermining has a significant positive influence on cyberloafing.*

***Anger as a mediator***

Anger mediates the relationship between supervisor undermining and cyberloafing in a way that intentional acts of undermining encompassing insult and disparaging remarks towards the targeted employees may perceived as a potential attack on the victim's work-related success, are likely to evoke strong emotional reactions, such as anger (Duffy, Ganster, Shaw, Johnson, & Pagon, 2006). Gibson and Callister (2010) defined anger as "an emotion that involves an evaluation of accountability for wrongdoing by another person or entity and often includes the goal of correcting the perceived wrong" (p. 68). Conditions that incite anger are goal interference, exacerbated by the supervisor in the form of not defending one's work-related efforts in front of others could be considered a hindrance to one's work-related success (Eissa & Wyland, 2018). Along these lines, such negative supervisor mistreatment elicits discrete negative emotion, in our case anger to which they vent through cyberloafing acts by watching entertainment-related websites or visiting sports-related websites. Thereby, engagement in cyberloafing activities may serve as an impetus to vent their suppressed emotions. In particular, employees who are under pressure and facing criticism may turn to cyberloafing as a coping mechanism since it enables them to save and recoup emotions (Henle & Blanchard, 2008; Ivarsson & Larsson, 2011). Based on AET, work-related events that elicit negative emotions will be deemed personal as they impact one's goals and achievements and are more likely to result in emotion-focused coping strategies. Thus, we propose:

**H2:** *Anger mediates the relationship between supervisor undermining and cyberloafing.*

***Conceptual Framework:***




*Source: Own Work*

## METHODOLOGY

This study aims to examine the association among the variables, and a cross-sectional design appears to be an appropriate method for quickly presenting the initial relationships between the variables. Cross-sectional designs are exploratory and valuable for identifying patterns of relationships among the variables of interest through a large data order of potential causes of the outcome variable (Spector, 2019). To do this, a quantitative research approach was utilized. The participants were recruited via a convenience sampling strategy from January 2024 to February 2024, working in varied technical roles including software engineers, web developers, full stack developers, and game developers. The responders were selected as they are working in the technical domain and being knowledge-oriented workers and tech-savvy employees they often have unrestricted access to the internet, so the propensity to cyberloafing may be high (Vitak, Crouse, & LaRose, 2011). In addition, instances of social undermining can also be observed in the IT profession, where they have to constantly update their skills and workers have to depend on their supervisors to share information. Undermining in the sense of makes such a profession more noteworthy for the investigation. Collecting data from the software industry was challenging, as they are working on different mediums, including on-site, offsite, and hybrid working. Although the software industry operates in a mix of working environments and most of them start their operations at night time, presents challenges for researchers to collect data, some organizations still adhere to a 9 am to 5 pm routine. A convenience sampling strategy was employed to collect data from employees who were present and available during these hours.

This study focused on the personnel working in the two metropolitan cities of Pakistan. (Islamabad and Rawalpindi). Twin cities were selected mainly due to the high concentration of software houses diverse population segments working in the city and ease of access. Moreover, the software industry is vast and expanded and they maintain strict policies to share to share any kind of information so we were unable to access the exact number of the population working in the sector. In light of this challenge, we adhered to Krejcie and Morgan (1970) recommendations, which state that a sample size of 400 or more is ideal for a larger population. This amount was considered appropriate to generalize the findings for the whole population. The self-administered survey was utilized to gather information on the investigated variables. Questionnaires were written in the English language as software professionals are educated and can easily read and understand this medium. Since the majority of workers in the software sector are young and approachable, so communicating and asking them to fill out the

questionnaire was easy. Thereby, we encountered no challenges during the data collection process. A cover letter was also attached with the questionnaire explaining the purpose of the study. At first, some respondents were reluctant to participate, but we reassured them that their responses would be kept confidential and would solely be used for academic and will not be shared with their respective companies.

Each variable under the investigation was meticulously operationalized, and well-established measures were chosen based on previous studies to guarantee the correctness of the findings. Supervisor undermining was assessed through a thirteen-item subscale of social undermining developed by Duffy et al. (2002). Sample items were “How often has your supervisor undermined your efforts to be successful on the job" and “How often has your supervisor intentionally insulted you”? Scale anchors ranged from (1= never) to (5= every day). Cyberloafing was measured with an 11-item scale developed by Lim (2002). Sample items were “In general, how often do you visit sports-related websites”, and “how often do you download non-work-related information”? Scale anchors ranged from (1 =never) to (5 constantly). Anger was measured with six adjectives, namely, anger, hostile, irritable, scornful, disgusted, and loathing from PANAS-X (Watson & Clark, 1994). Scale anchors ranged from (1= very slightly) to (5=extremely). We controlled gender (0= male, 1=female), age, and Internet skills (1= skilled, 2= moderately skilled, 3 = highly skilled) as used in the previous literature (Koay et al., 2022).

The study employed well-defined metrics for all the variables utilizing prior research. The methodological selections, consisting sampling approach and sampling strategy along with the application of validated scales present a robust design to infer the correlations among the variables, particularly in the domain of the software sector.

## ANALYSIS

### *Demographics*

We collected data from the employees working in the technical domain of software houses from Islamabad and Rawalpindi. In altogether, 800 questionnaires were distributed, 596 completed usable questionnaires were returned, yielding a response rate of 59.6%. The low response rate could be attributed to the fact that employees were too occupied with their projects and refused to respond. The results are displayed in *Table 1*.

***Table 1: Descriptive Statistics***

| Gender | Frequency | Percentage |
|---|---|---|
| **Male** | 425 | 71.3 |
| **Female** | 171 | 28.7 |

Approximately 40.4% of participants had moderate internet skills, whereas 59.6% had skilled or highly skilled internet skills. Lastly, the respondents' average age was 28.6 years (SD = 6.263). No missing values were observed mainly due to the reason that the data collection was self-administered and the participants were guided to wisely complete the questionnaire. Bivariate correlations across variables were below 0.7, indicating no issue of multi-collinearity. Moderate correlations were observed between the variables (see table 2).

***Table 2: Means, standard deviations, and correlations among constructs***

| S.No. | Details | Mean | SD | 1 | 2 | 3 |
|---|---|---|---|---|---|---|
| 1 | Supervisor undermining | 3.10 | .981 | **0.750** | | |
| 2 | Anger | 3.15 | .954 | 0.462** | **0.755** | |
| 3 | Cyberloafing | 3.02 | .943 | 0.457** | 0.518** | **0.715** |

Note: **.Correlations are significant at the 0.01 level
Square root of the AVE value on the diagonal (in bold)

A confirmatory factor analysis (CFA) was performed to assess the model fitness in Amos (21.0). The CFA model fitted the data well: $\chi 2/df$= 3.30, CFI=0.915, TLI=0.909, RMSEA=0.037, GFI=0.874, and CMIN=3.302 (see table 3). All the alpha coefficients, including composite reliability estimates, and average variance extracted values were above the recommended threshold values of 0.7, 0.7, and 0.5, respectively (Hair Jr, Hult, Ringle, & Sarstedt, 2016). Convergent validity was tested through the factor loadings of scale items on their respective constructs. All item loadings were above the threshold value of 0.7 (Hair Jr, Babin, & Krey, 2017).

***Table 3: Measurement Model***

| Model | $\chi^2$ | RMSEA | CFI | TLI | GFI | CMIN |
|---|---|---|---|---|---|---|
| | 3.30 | 0.037 | 0.915 | 0.909 | 0.874 | 3.302 |

As depicted in Table 2, discriminant validity was established by taking the square root of average variance extracted values for each scale, which was higher than the construct's respective correlation with all other constructs (Fornell & Larcker, 1981). Overall, the results provided evidence for the convergent and discriminant validity of the constructs.

***Hypothesis Testing***

Prior to hypothesis testing mediation analysis, Harman's single-factor test was utilized to examine the issue of common method variance. Results revealed that the first factor explained the majority of the total variance which is 36.5% (less than the threshold value of 50%), indicating that CMV was not a major issue. A non-parametric bootstrapping procedure using AMOS to generate 5,000 bootstrap samples and the bias-corrected bootstrap method with 95% confidence intervals were used to evaluate the structural model. The specific indirect effect of anger was calculated using the phantom model approach. The method indicates that if a zero is not included in the 95 percent confidence interval of the estimate, it means that the indirect effect is statistically significant.

***Table 4: Results of hypothesis testing***

| Paths | Path coefficients | BC [95% C.I] |
|---|---|---|
| H1: supervisor undermining ⟶ cyberloafing | 0.188 | [0.063,0.308] |
| H2: supervisor undermining ⟶ anger ⟶ cyberloafing | 0.144 | [0.061,0.206] |

The findings of the hypothesis (table 4) suggest that supervisor undermining is positively related to cyberloafing. According to our results, cyberloafing and supervisor undermining ($\beta = 0.188$, $t = 3.826$, $p < 0.05$) which support our first hypothesis. To verify the indirect effect, a phantom model approach was utilized. With a point estimate of 0.144 and a 0.001 p-value, the results showed a significant effect. The 95% bias-corrected lower and upper confidence intervals are 0.061 and 0.206 which means that there is no zero in between therefore anger mediates the relationship between supervisor undermining and cyberloafing, which supports H2.

## DISCUSSION

The overall objective of this study was to determine the direct and indirect association between supervisor undermining and cyberloafing via the potential mediating role of anger among the employees working in the software houses of twin cities of Pakistan. The findings of the study reveal that employees cyberloaf to cope with supervisor undermining, contrary to the common belief that employees cyberloaf to retaliate against organizational injustice (Lim, 2002), suggesting exposure to supervisor undermining influences cyberloafing acts among the undermined employees. To corroborate this, Koay (2018), identified employees' indulgence in cyberloafing acts could be a response to workplace ostracism. Andel and Colleagues (2019) also supported the notion that cyberloafing can be used as an emotion-focused coping mechanism against workplace aggression. Moreover, we have attempted to present the

affective mechanism between supervisor undermining and cyberloafing, which has received scant attention in the literature (Tandon et al., 2022). We propose that supervisor undermining provokes anger, particularly when they perceive unjust treatment, lack of recognition, and withholding of important work-related information. However, owing to professional constraints and control over work-related resources, victims tend to suppress it and in turn, engage in cyberloafing to cope with anger. Our findings are aligned with Gibson and Callister (2010) who state that anger is likely to be experienced in response to in the face of unjust treatment and uncivil treatment at work. To avoid these negative emotions, cyberloafing serves as a coping strategy by chatting online with friends (Andel et al., 2019; Yang, Lin, Chen, & Peng, 2023). This is supported by the general strain theory, which states that when a person goes through a stressful situation, they will feel one or more negative emotions that lead to non-adaptive behaviors (Agnew, 1992). The theoretical basis of affective events theory (Weiss & Cropanzano, 1996) provides a strong linkage among the variables and is widely employed to explore the association between workplace mistreatment and the resultant negative work outcomes.

***Conclusion***

The current study offers useful insights that cyberloafing is not always detrimental but rather can be opted as a coping strategy among undermined employees to maintain their emotional equilibrium and to avoid interaction with aversive stimuli. Our findings indicate that supervisor undermining is the key drive that influences employees to engage in cyberloafing acts. In summary, the research emphasizes that instead of implementing stringent internet usage policies and punitive measures against cyber loafers, organizations ought to cultivate a civil and cooperative work environment and take steps to prevent such relational uncertainties.

***Theoretical Implications***

The study presents noteworthy theoretical implications to expand the literature on cyberloafing in various domains. First, we propose and test supervisor undermining as a novel predictor of cyberloafing. To this end, we proved that employees engage in cyberloafing to cope with workplace mistreatment elicited by their supervisor. Second, we explored the mediating role of anger between supervisor undermining and cyberloafing. By doing so, we extended the AET (Weiss & Cropanzano, 1996) by examining supervisor undermining as negative work-related events that evoke anger among the undermined employees which they cope with through cyberloafing acts.

***Practical Implications***

Practically we find our research to be important in a way that undermining is a salient factor that drives employees to engage in cyberloafing. Our analysis confirmed that supervisor undermining has a detrimental effect on victims' affective states, which they cope with through cyberloafing. To curb cyberloafing acts should be a top priority by the organizations as it may intensify the habits of procrastination which could derail interpersonal relationships at work by delaying work assignments (Lim & Teo, 2024). More importantly, when an employee perceives that they are mistreated or unable to accomplish their work goals because of supervisor mistreatment, anger is the likely response. However, owing to power asymmetry, they generally suppress it and opt for other coping strategies to deal with it. Therefore, managers need to deal with such mistreatment issues at work rather than fostering a culture where people must suppress their anger and resort to it through cyberloafing. Thus, senior managers should adopt strict regulations and a zero-tolerance policy against supervisors' undermining behavior. More importantly, organizations must take necessary steps to educate all employees, irrespective of their position, to maintain a form of mutual respect within the organization. In addition, grievance portals must be introduced within the organizations, where victims can register their complaints with those involved in such undermining behaviors and managers must ensure that they take strict actions. Second, anger was found to be a predictor of cyberloafing to maintain emotional equilibrium. However, the time and energy spent seeking such consolation drain their energy and time on other work-related tasks. Therefore, we recommend that organizational managers must offer psychological counseling services and emotional assistance at work (Wang, Zhang, Cai, & Cui, 2024) rather than opting cyberloafing strategy.

***Limitations and Future Research***

Despite the contributions of this study, several limitations exist. First, the study utilized is cross-sectional research design, which limits the assertions to draw causal relations as it captures the associations among the variables. However, due to time constraints and study limitations, we adopted this research design. Second, we relied on self-reported data which can induce common method and social desirability bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). However, depending on the covert nature of the variable like cyberloafing which could be hardly detected by others (Lim, 2002), supports the use of self-report measures. Therefore, self-reported measurements seem reasonable. On the other hand, the possibility that respondents portray a positive picture of their activities at work rather than the reality of

negative ramifications may arise in their responses. Therefore, we recommend that data must be gathered from multiple sources (e.g., supervisor, coworker) as they might produce accurate evaluations of cyberloafing behaviors. As we collected data only from the employees working in the technical domain of software houses, gathering data from a diverse sample, including different departments and other sectors, would be applicable to enhance the external validity of the present findings. Moreover, due to time and resource constraints, we were limited to twin cities of Pakistan. Data could be collected from the software houses of other big cities in Pakistan to articulate the findings.

We recommend several future research directions for researchers. First, we suggest alternative work-related thoughts; such as rumination could be tested as a potential mediator between the underlying mechanisms. Additionally, perceived professional competency could be taken as a mediator between supervisor undermining and cyberloafing in the future. We conjectured that being subjected to supervisor undermining creates a negative perception of the target's professional competency and credibility in front of their coworkers, which victims cope with through cyberloafing. Similarly, when it comes to employee attitude, job satisfaction can be considered a predicate. According to Locke and Latham (1990), employees who are not satisfied with their jobs lack motivation, commitment, and persistence to perform the job. These feelings further detach them from their relevant task activities, with cyberloafing serving as a potential distractor for their dissatisfaction.

Second, we did not test the victims' personality traits; however, based on AET, we propose that future research might investigate personality traits (e.g., conscientiousness) as a boundary condition that may accentuate or attenuate the negative effects of supervisor undermining on the proposed outcomes. Third, the impact of other additional antecedents related to workplace mistreatment such as workplace incivility and workplace discrimination on cyberloafing can also be tested in future studies. Fourth, our research was limited to identifying the probable antecedents and underlying mechanism of cyberloafing, this prevents us from making stronger recommendations to organizational decision-makers anxious about Internet usage and time-wasting behavior at work, future scholars should examine the outcomes of cyberloafing. Finally, the cross-sectional methodology utilized in this study limits the assertions to draw causal relations among the variables. Therefore, we recommend that future researchers advance the cyberloafing literature by employing several methodologies such as cross-lagged designs, experimental and observational studies, daily diary studies, and qualitative approaches. Addressing these future directions will open new avenues for researchers and practitioners.

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