Center for Management Science Research
ISSN: 3006-5291 3006-5283 Volume 4, Issue 3, 2026

ANTECEDENTS AND CONSEQUENCES OF CYBERLOAFING AMONG FACULTY IN PAKISTANI UNIVERSITIES

Muhammad Umer Mehboob[1], Dr. Kausar Abbas[2], Hannan Afzal[*3]

[1] *Ph.D. Scholar, Department of Business Administration, University of Sialkot, Sialkot, Pakistan*
[2] *Professor, Faculty of Management & Administrative Sciences, University of Sialkot, Sialkot, Pakistan*
[*3] *Assistant Professor, Department of Business Administration, University of Sialkot, Sialkot, Pakistan*

[*3]hannanafzal6@gmail.com

DOI: https://doi.org/10.5281/zenodo.23882734

Keywords
Workplace Ostracism, Moral Disengagement, Cyberloafing, Psychological Detachment, Cognitive Engagement.

Article History
Received: 30 January 2026
Accepted: 15 March 2026
Published: 31 March 2026

Copyright @Author
Corresponding Author: *
Hannan Afzal

Abstract

The present study investigates the role of workplace ostracism and moral disengagement in predicting cyberloafing, and finally, psychological detachment and cognitive engagement of faculty members in higher education institutions in Pakistan. The study is based on social cognitive theory and theorizes workplace ostracism as an environmental condition, moral disengagement as a self-regulatory cognitive process and cyberloafing as a behavioral response. The study was conducted in Punjab in Pakistan and questionnaires were used to collect the data from faculty members of universities. A total of 783 questionnaires were received but only 737 were complete and used for analysis. Convenience sampling was used and proposed measurement and structural models were tested by partial least squares structural equation modeling. All 12 hypotheses were supported by the findings. Cyberloafing was related to both ostracism and moral disengagement in the workplace and to both psychological detachment and a decrease in cognitive engagement. Both antecedents also negatively predicted psychological detachment and cognitive engagement directly. All four of the relationships between the antecedents and the outcomes were significantly mediated by cyberloafing. These findings reveal the dual role of cyberloafing: it can offer temporary cognitive relief while simultaneously weakening task-focused engagement. The study extends the cyberloafing study to the context of Pakistani university and provides practical guidance to foster inclusion, ethical self-regulation, healthy recovery and sustainable faculty engagement.

1. INTRODUCTION

Digital technologies are an integral part of modern learning practices. The same technology that is used to teach, research, evaluate, communicate and manage the day-to-day operations of the faculty, is the same that allows for non-work Internet access. Cyberloafing is thus a constant worry as there is a possibility that it will waste working time and disperse focus. Scholarship recently depicted cyberloafing as a multi-faceted behavior rather than just a negative way of withdrawing. Short-term online activities can provide relief but long-term use can lead to distraction and decreased concentration and performance (Jamaluddin et al., 2023; Krishna & Agrawal, 2023; Lim & Teo, 2024; Lu et al., 2024; Uslu, 2025).

In higher education institutions, where the work of the faculty is very cognitive, very interdependent in relation to one another and is hard to be contained in the traditional working time, this issue is especially valuable. The academic staffs are involved in teaching, research, supervision, administration, and digital communications. These can lead to brief online breaks due to strain, boredom, or ineffective management (Hessari et al., 2025; Kyambade, 2025; Nweke et al., 2024; Peng et al., 2023). Cyberloafing, as revealed in recent studies, is not monolithic in nature, can be manifested in different ways, and has different effects depending on the motive and context in which it occurs (Kwala & Agoyi, 2024; Nurtjahjanti et al., 2024).

This study is based on two antecedents and two consequences of cyberloafing. Ostracism in the workplace is defined as the perception that one is ignored or socially disconnected from others or excluded from the workplace. Moral disengagement is a set of mental processes in which one rationalizes actions that violate moral standards. Cyberloafing highlights the misuse of digital technologies during work hours in a voluntary manner. The psychological detachment refers to mentally disconnecting from work, while the cognitive engagement is the level of attention, absorption and intellectual investment towards working activities. Modern studies correlate ostracism and moral disengagement with cyberloafing and withdrawal with increases in detachment and decreases in cognitive involvement (Chen, 2024; Koay & Lai, 2023; Levkov & Kitanovikj, 2024; Mihelič et al., 2023; Ohana et al., 2024).

An important gap nevertheless remains. Selected relationships have been investigated in university students, remote workers and corporate employees. For instance, student studies have correlated psychological detachment with the extent of cyberloafing, as well as cognitive engagement with cyberloafing (Koay & Lai, 2023; Levkov & Kitanovikj, 2024; Mihelič et al., 2023), and workplace ostracism has been linked with cyberloafing via moral disengagement. Research elsewhere has also found associations between interpersonal mistreatment, social undermining, and disengagement or poorer well-being (Chen, 2024; Malik et al., 2025). But the integrated model where workplace ostracism and moral disengagement are considered as simultaneous antecedents, cyberloafing is a mediator and psychological detachment and cognitive engagement are looked upon at the same time has not been tested with university faculty in Pakistan. The need for the study is that the faculty's effectiveness is not only based on the faculty's expertise but is also influenced by concentration, belonging to the social group, moral regulation, and the ability to recover from work. Psychological detachment is positively associated with mental well-being and recovery, whereas low psychological detachment can result in stretching working time past its limits (Baktash & Pütz, 2025; Blake et al., 2025; Sonnentag et al., 2024; Wu et al., 2023). Rather, cognitive engagement is a key component of thoughtful instruction, excellence in research, student welfare, and intelligent academic choice. Therefore, exclusion at school and the improper use of the internet in the workplace can have an impact on the well-being of faculty members and on the organization of the institution. Further emphasizing the need to look at these processes in stressful work environments, evidence shows that after hours communication and work stress also extend to cyberloafing (Zhang et al., 2023).

The rationale for the mediator position of cyberloafing is that it can be linked to different employee outcomes as a result of adverse social and cognitive stimuli. Ostracism can lead to personal online activity as a way to seek relief from rejection or to regain threatened resources, and morally disengaged employees may see this as acceptable and not feel as guilty. This behavior can cause temporary disconnect from work, but also it can break concentration and reduce engagement. This dual interpretation is supported by recent research, which sees cyberloafing as a coping strategy or as a counterproductive behaviour and describes its impacts on different outcomes (Cohen & Özsoy, 2025; Jamaluddin et al., 2023; Kwala & Agoyi, 2025; Lim & Teo, 2024). A psychological detachment and a cognitive

engagement are thus explored simultaneously, which helps to offer a more comprehensive picture than that of cyberloafing being a strictly positive or negative experience.

The model is based on the social cognitive theory. The theory is based on the interaction between environmental conditions, personal cognition, and behavioral action (Bandura, 1986). In the current model, ostracism in the workplace is a social-environmental cue, moral disengagement is a self-regulatory cognitive process, and cyberloafing is a behavioral response. Conflict with psychological detachment and cognitive engagement are future psychological outcomes which can sustain future thinking and behavior. This reasoning aligns with recent cyberloafing studies that examine workplace exclusion and incivility (Koay & Lai, 2023; Koay & Liew, 2026), moral disengagement (Ohana et al., 2024; Usmani, 2025), and digitally facilitated withdrawal (Usmani, 2025; Ohana et al., 2024).

This study focuses on the faculty members of the universities of Punjab, Pakistan. Partial least squares structural equation modeling is used to analyze the survey results to determine the direct and mediated relationships in the proposed framework. The study makes a unique contribution by introducing relationships that have been studied primarily in student or non-academic employee samples to the context of professional higher education, and by examining both positive and negative impacts of cyberloafing in one model. The findings have practical implications for university leaders in implementing inclusion practices, developing ethical norms, introducing recovery-supportive supervision, and enacting proportionate norms on digital use, not just surveillance or punishment (Hessari et al., 2025; Lim & Teo, 2024; Sonnentag et al., 2024; Uslu, 2025).

2. Literature Review

2.1 Theoretical Understanding

According to the social cognitive theory, human behavior is a result of reciprocal relationships between environmental factors, cognition, and behavior (Bandura, 1986). It also elucidates on moral agency by self-regulation: people typically compare their behavior to their internal standards but when people become morally disengaged, self-sanctions can be turned off, and questionable behavior can be perceived as acceptable (Bandura, 1999). The present model is a framework that is applicable to workplace ostracism as an environmental cue, cognitive moral disengagement as an internal mechanism, and cyberloafing as an external behaviour. Psychological detachment and psychological engagement are downstream psychological states of that behavior. Ostracism can influence the way employees perceive the work environment, and moral disengagement can decrease the guilt associated with their own Internet use during work hours. Cyberloafing can then serve as a temporary respite from reality and become a focus point off the academic agenda. Thus, social cognitive theory places the study variables in a unified sequence between environment, cognition, behavior, and outcome, and provides an account for the differential regulation of behavior of faculty in similar environments.

2.2 Cyberloafing

Cyberloafing is defined as the voluntary use of the web, cell phone or organizational electronic resources during the work day for non-work-related activities (Lim, 2002). These involve such activities as socializing on social media, reading the news of non-working affairs, shopping online, personal messaging, entertainment browsing, and more. The earlier literature tended to agree on cyberloafing as counterproductive work behavior since it takes away time and attention from assigned tasks. More recent studies paint a more nuanced picture. According to Lim and Teo (2024), cyberloafing is a multidimensional phenomenon, and the antecedents and outcomes of cyberloafing are affected by motives, duration, type of activity and context. It can manifest due to stress, boredom, social mistreatment, low self-control, or inadequate job design (Jamaluddin et al., 2023; Lu et al., 2024; Uslu, 2025; Usmani, 2025). Use of the Internet can also have negative effects, such as making it harder to focus and

concentrate, or to perform or engage in activities, if it is used too often and too intensely (Kwala & Agoyi, 2024, 2025). In universities, faculty members need to be able to access digital resources at all times for legitimate purposes, so the distinction between productive online activity and "cyber-loafing" is especially hard to spot. Thus, cyberloafing can be defined as a reactional behavior with short-term positive consequences and long-term detrimental consequences in terms of work.Therefore, cyberloafing can be viewed as a reactional behavior that may have restorative short-term consequences, but detrimental long-term task consequences.

2.3 Workplace Ostracism

Ostracism in the workplace refers to the sense of being ignored, excluded or socially invisible by others in the workplace (Ferris et al., 2008). Can be expressed in various ways, such as no reply to greetings, being left out of conversations and meetings, not being given information, or hardly anyone acknowledging them. Ostracism, unlike overt aggression, may be ambiguous and not easily challenged, but is nevertheless a threat to belonging, self-esteem, control and meaningful life. Collegial exclusion from collegial networks, research collaborations, informal decision-making processes, or departmental communications may have a deeper impact in the academic environment, as faculty work is dependent on social and knowledge exchange. Recent studies have found that ostracism is associated with emotional resource depletion, decreased service-oriented behavior, decreased engagement and well-being, and withdrawal-related responses (Chen, 2024; Rabiul et al., 2024). In the Koay and Lai (2023) study, workers who were excluded from the workplace engaged in more cyberloafing and induced moral disengagement, suggesting that ostracized employees might justify their personal use of the Internet as a flight from work or a form of revenge. Also, social undermining research indicates that interpersonal mistreatment leads to avoidance coping via cyberloafing (Malik et al., 2025). Therefore, workplace ostracism can divert attention of faculty away from school-related activities into private digital activities.

2.4 Moral Disengagement

Moral disengagement is a cognitive mechanism by which people reduce the need to consider their own moral standards and make it easier to distinguish between negative behavior they engage in and the consequences of that behavior (Bandura, 1999). Works by means of moral justification, euphemistic labeling, advantageous comparison, displacement or diffusion of responsibility, distortion of consequences, dehumanization, and attribution of blame. Moral disengagement in organizational research refers to a person's ability to become unethical or engage in counterproductive work behaviors without losing his or her positive self-concept (Moore et al., 2012). In the cyberloafing area, some employees may argue that everyone else does it, that the institution discriminates against employees, that no one is being hurt, or that too much demands makes it reasonable. Presently, the empirical findings increasingly indicate that moral disengagement is an important cognitive mechanism that leads to cyberloafing. It is a mediator between workplace ostracism and unfavorable job characteristics (Koay & Lai, 2023; Ohana et al., 2024; Usmani, 2025) and boosts rationalizations for non-work digital behavior. The results of higher education students also show a positive correlation between the moral disengagement and cyberloafing (Mihelič et al., 2023). So morally disengaged faculty might be less motivated in putting in effort to avoid online distractions.

2.5 Psychological Detachment

Psychological detachment refers to mentally being away from work, and avoiding work thoughts, during recovery periods (Sonnentag & Fritz, 2007). It is not only about being physically absent from work—it's about being disengaged from the demands of the job from a cognitive and emotional standpoint. Detachment can break the cycle of prolonged activation, aid in resource restoration and promote wellness. Longitudinal

and multilevel studies have recently demonstrated that a greater degree of detachment is associated with greater mental well-being, and that leaders can foster recovery by setting boundaries and communicating healthy work–nonwork separation (Baktash & Pütz, 2025; Blake et al., 2025; Sonnentag et al., 2024). Cyberloafing can create intermittent distraction, which can take the focus off of work and onto something else online. Earlier research with employees and students revealed positive relationships between cyberloafing and psychological detachment, which can occur alongside employee fatigue or performance costs (Levkov & Kitanovikj, 2024; Mihelič et al., 2023; Wu et al., 2020). But there may be obstacles to true recovery from unhealthy social conditions. Rumination can result from ostracism, and moral disengagement can be caused by unresolved cognitive justification, thus limiting the ability to cognitively detach adaptively from work.

2.6 Cognitive Engagement

Cognitive involvement is defined as the degree of attention, concentration, thought and intellectual effort devoted to an employee's job tasks. It is the cognitive aspect of a larger construct of job engagement and is manifested in absorption, mental persistence, and concentrated effort into task performance (Rich et al., 2010). In the university sphere, cognitive engagement is fundamental since designing instruction, conducting research, supervising research, evaluating research and academic problem solving demands constant mental activity from the university faculty. This state can be compromised by cyberloafing, which includes task switching, attentional residue and competing online stimuli. Research on higher education suggests that cyberloafing has a detrimental effect on students' cognitive engagement and separates them from learning tasks (Levkov & Kitanovikj, 2024; Mihelič et al., 2023). The same processes apply to faculty, in which frequent review of personal digital material can be a distraction to complex knowledge tasks. Cognitive engagement could also be lost due to workplace ostracism, which could cause a shift in focus toward social threat and social exclusion, or moral disengagement, which could lead to a decrease in self-regulation of behavior to meet professional standards. The research results also indicate that digital ostracism negatively impacts work engagement via isolation, communication difficulties, and procrastination (Chen, 2024). Cognitive engagement is therefore one of the key negative consequences of interpersonal exclusion, reduced moral self-regulation and cyberloafing.

2.7 Hypothesis Development

Ostracism in the workplace undermines employees' sense of belonging and is a message that social resources will not be available. Those who were excluded can then pull back, look elsewhere for social encounters or find ways to avoid the rejection hurt by engaging in online activities. Cyberloafing provides a quick and easy way to divert attention from an undesirable work environment. It can also be a type of indirect retaliation when workers feel their employers or coworkers have violated the norms of fair treatment. This is supported by empirical evidence. A significant positive effect of workplace ostracism was observed on cyberloafing, with moral disengagement partly accounting for this effect, as found by Koay and Lai (2023). Malik et al. (2025) also found that the social undermining can have an effect on cyberloafing in either an affective or a learning way, and a recent review revealed ostracism as one of the repeating relational precursors for individual use of the Internet at work (Uslu, 2025). Exclusion from collegial communication and decision making in faculty environments can thus foster private digital withdrawal. Hence it is hypothesized that:

H1: Workplace ostracism is positively related to cyberloafing.

2.7.2 Moral Disengagement and Cyberloafing

In normal cases, employee use of paid work time for personal activities that are inconsistent with employee obligations should be discouraged by moral self-regulation. Moral disengagement undermines this inhibition by redefining

cyberloafing as something that is harmless, deserved, common, or out of their control. Staff might deflect responsibility for their conduct among other staff, or point to unfair treatment or too much workload as the source of their actions. These rationalizations lower the sense of guilt that is hoped for and make the temptation easier to take on the internet. In the higher education environment, Mordecai et al. (2023) did confirm that moral disengagement was a positive predictor of cyberloafing among higher education students, and Koay and Lai (2023) did identify it as a significant mechanism in workplace cyberloafing. Similarly, both Ohana et al. (2024) and Usmani (2025) found that moral disengagement influences cyberloafing in adverse work environments. Recent research on mistreatment still centers on moral disengagement as a key mechanism by which negative workplace experiences can be digitally enabled withdrawal (Koay & Liew, 2026). Thus:

H2: Moral disengagement is positively related to cyberloafing.

2.7.3 Cyberloafing, Psychological Detachment, and Cognitive Engagement

The effects of cyberloafing can be mixed, either positively or negatively with regards to psychological detachment and cognitive engagement. First, doing a demanding task and then doing an unrelated activity online can provide a space of mental distancing from work. These micro-breaks can lessen acute stress, offer entertainment, and can reset the brain. Employee research indicates that social cyberloafing can positively impact psychological detachment, but can also cause employee fatigue (Wu et al., 2020). Higher education students are also found to experience increases in psychological detachment as a result of cyberloafing, in more recent studies (Levkov & Kitanovikj, 2024; Mihelič et al., 2023). The results indicate that individual faculty might engage in personal digital activity to temporarily "disengage" from academic responsibilities.

Second, this shift of attention can diminish cognitive engagement. Cyberloafing distracts from the continuity of the tasks, presents multiple cognitive demands, and undermines the quality of attention given to teaching, research, and administrative duties. Several studies conducted in educational contexts demonstrate a reduction in cognitive engagement as a result of the non-task uses of digital media (Levkov & Kitanovikj, 2024; Mihelič et al., 2023). In general, reviews indicate that the main risks of non-task use of digital media include impaired focus and performance (Lim & Teo, 2024; Uslu, 2025). Therefore:

H3: Cyberloafing is positively related to psychological detachment.

H4: Cyberloafing is negatively related to cognitive engagement.

2.7.4 Workplace Ostracism, Psychological Detachment and Cognitive Engagement

Ostracism is expected to decrease psychological detachment as exclusion is likely to continue cognitively following the initial interaction. Staff can ruminate on their excluded status and "plan" for the next time they are rejected. With such rumination, work is kept activated and genuine work recovery is prevented. New research indicates that workplace ostracism and digital ostracism have a negative impact on employee well-being and engagement, by causing a lack of social connection, communication problems, and procrastination (Chen, 2024). Recovery studies also suggest that supportive social and leadership environments promote disengagement, suggesting that exclusionary environments may have a negative effect (Sonnentag et al., 2024).

Ostracism should also bring about less cognitive engagement. Social exclusion takes up mental energy, reduces sense of belonging, and diminishes willingness to expend effort in a rejecting workplace. When faculty feel unappreciated, they may focus on social threat, not school work, and may opt out of voluntary intellectual exertion. Rabiul et al. (2024) showed that emotional exhaustion and a decrease in the service orientation were found to arise as a result of workplace ostracism, and research on relational mistreatment revealed comparable withdrawal tendencies (Malik et al., 2025). Accordingly:

H5: Psychological detachment is negatively related to workplace ostracism.
H6: Workplace ostracism is negatively related to cognitive engagement.

2.7.5 Moral Disengagement, Psychological Detachment, and Cognitive Engagement

Moral disengagement is likely to hinder psychological detachment, due to its dysfunctional nature and its nature as a form of self-regulation. Disengaged reasoning may help to lessen immediate guilt, but having justifications for problematic behavior can lead to unresolved cognitive processing and to an incomplete transition from work to recovery. If employees repeatedly state that they blame the institution, they minimize consequences or rationalize avoidance, they may be mentally stuck in the conditions they are trying to avoid. Withdrawal can thus coexist with moral disengagement with the result being that healthy detachment is compromised.

Moral disengagement should also decrease cognitive engagement. Self-sanctions that are suspended help employees lower their internal standards that promote persistence, responsible time use and focused effort. The appeal of online distraction becomes more apparent, and professional responsibilities are given less priority in terms of cognition. Empirical studies have been conducted to examine the relationship between moral disengagement and counterproductive behaviours including cyberloafing (Koay & Lai, 2023; Mihelič et al., 2023; Ohana et al., 2024; Usmani, 2025) as well as between moral disengagement and reduced moral self-regulation and task-focused investment. Such rationalization in the university environment could lead to less attention being given to higher-order cognitive tasks by faculty. Thus:

H7: Moral disengagement is negatively related to psychological detachment.
H8: Moral disengagement is negatively related to cognitive engagement.

2.7.6 Cyberloafing as Mediator

The proposed behavioral mechanism of the relation between workplace ostracism, moral disengagement, psychological detachment and cognitive engagement is cyberloafing. Ostracism fosters a socially undesirable atmosphere that will prompt workers to look elsewhere on their own computers, namely to private online environments. This change can, to some degree, increase psychological detachment, as the feeling of being excluded can be temporarily alleviated by the change, even if it directly inhibits healthy detachment via rumination. Cyberloafing can, therefore, have an indirect ostracism-detachment relationship, which can be a compensatory or competing relationship. Moral disengagement also makes it possible for personal Internet use as a means of circumventing guilt. If employees cyberloaf, their state of mind may become detached, creating an indirect pathway of positive affect that is opposite to the negative direct pathway proposed.

In terms of cognitive engagement, the mediation logic is more consistent, with a negative impact. Ostracism and moral disengagement are associated with cyberloafing, and cyberloafing diverts attention away from work and towards other digital content. Therefore, the impact of exclusion and lessened moral regulation should be partial in reducing cognitive involvement due to stimulation of online withdrawal. The separate links that have been mentioned in these chains have been established by prior research. Cognitive rationalization is the mediator between workplace ostracism and the cyberloafing behaviour (Koay & Lai, 2023), Moral disengagement is the mediator between workplace ostracism and the cyberloafing behaviour (Mihelič et al., 2023; Usmani, 2025), and cyberloafing behaviour is found to increase the psychological detachment while reducing the cognitive engagement (Levkov & Kitanovikj, 2024; Mihelič et al., 2023). Accordingly:

H9: Cyberloafing mediate the relationship between workplace ostracism and psychological detachment.

H10: Cyberloafing mediate the relationship between moral disengagement and psychological detachment.

H11: Cyberloafing mediate the relationship between workplace ostracism and cognitive engagement.

H12: Cyberloafing mediate the relationship between moral disengagement and cognitive engagement.

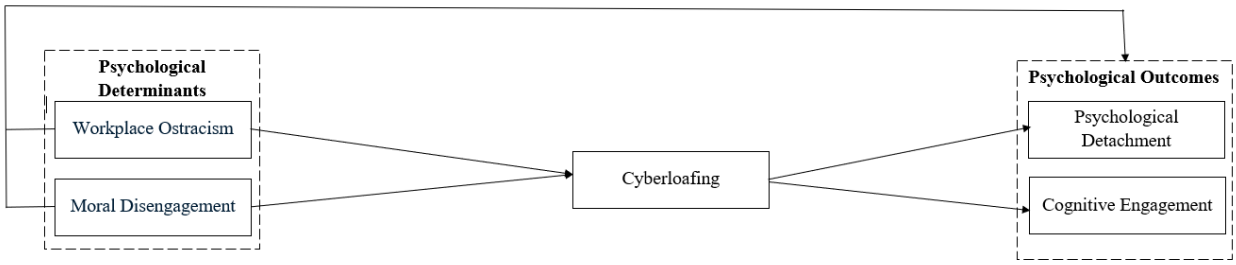


Figure 1: Theoretical Framework

3. Research Methodology

A quantitative and cross-sectional research design was used for testing the proposed relationships. The unit of analysis was the individual faculty and the target population were faculty members of the higher education institutions in Punjab, Pakistan. The data were obtained from a structured questionnaire, which was based on convenience sampling since a complete and available sampling frame of faculty members in all the universities involved was not available. 783 questionnaires were received. A total of 46 responses were screened for completeness, with a final sample of 737 questionnaires for the final analysis. The sample size was deemed sufficient for estimating the proposed model with a number of direct and indirect paths.

Among the respondents, 404 (54.8%) were male. The largest proportion of participants, 311 (42.2%), belonged to the 31–35-year age group, while 443 (60.1%) held an MS-level qualification. In addition, most respondents had between 1-5 years of work experience. The detailed demographic characteristics of the respondents are presented in Table 1.

Table 1: Respondents' Characteristics (N= 737)

Demographic Characteristics	Code	Frequency	Percentage of Total
Gender	Male	404	54.8
	Female	333	45.2
Age	25-30	179	24.3
	31-35	311	42.2
	36-40	145	19.7
	Above 40	102	13.8
Education	MS/MPhil	443	60.1
	Ph.D.	294	39.9
Work Experience	Less than 1 year	91	12.4
	1-5 years	203	27.5
	6-10 years	165	22.4
	11-15 years	134	18.2
	Above 15 years	144	19.5

3.1 Measures

Established multi-item scales were used for all constructs, adapted to the faculty context. The Workplace Ostracism Scale created by Ferris et al., (2008) was used to measure workplace ostracism with 10 items. The 6 items assessing moral disengagement were adapted from those of Moore et al. (2012), while the scale for cyberloafing was adapted from Lim (2002) with 11 items. Psychological detachment was measured with 4 items using the detachment scale of the Recovery Experience Questionnaire (Sonnentag & Fritz, 2007). The cognitive engagement items from Rich et al. (2010) were used to measure cognitive engagement with 6 items. Likert-type statements were used to collect responses, with more positive responses indicating more of the constructs.

3.2 Data Analysis Procedure

For data analysis, Partial least squares (PLS) was chosen due to the following considerations. To begin with, complex model analysis is a good fit for PLS-SEM. Secondly, the need that data from samples have normal distribution is relaxed. Lastly, several statisticians advise using PLS-SEM when a research model incorporates reflective constructs since its estimation findings are accurate under construct specifications (Hair et al., 2019; Attiq et al., 2026). The complicated research approach used in this study includes five first-order constructs. Smart-PLS 4.0 was used to assess the measurement and structural models in light of the previously listed factors. The convergent validity, discriminant validity, and reliability of the measurement model were evaluated using fitness indices. We looked into each hypothesis's pathways and applicability to the structural model.

4.1 Common Method Bias

Examining common method bias (CMB) is crucial in cross-sectional studies. According to the results of the Harman-Single Factor test, the highest explained variance was 37.8% that is below the 50% threshold (Hair et al., 2019). These results showed that CMB is not a serious problem.

4.2 Measurement Model

The reliability, validity, and fitness indices results are displayed in Table 2. For every observed variable, the outside loadings and indicator reliability are measured. According to the results, all of observed variables have outer loadings greater than 0.60 and indicator reliabilities greater than 0.40 (Hair et al., 2019). Both composite reliability and Cronbach's alpha assess how effectively latent components are measured by observable variables (Hair et al., 2019). The reliability is confirmed by all values being greater than 0.708. When AVE is examined for convergent validity, all constructs meet the threshold, or are over 0.50, indicating no validity problems. Both fit index and explanation power were taken into account while evaluating the model. The entire model fit was evaluated using SRMR, and a value of 0.036 satisfied the requirement of <0.08 (Hair et al., 2019). Weak variation explained by model for cyberloafing (i.e., 0.107), moderate variance explained by model for psychological detachment (i.e., 0.340) and substantial variance explained by model for cognitive engagement (i.e., 0.664) which is shown by R^2 values. These results validate the model's significant explanatory power and appropriate fit.

Table 2: Measurement Model Analysis

Constructs	Code	Outer Loading	Indicator Reliability	Cronbach's Alpha	Composite Reliability	Average Variance Extracted	SRMR	R^2
	Threshold	*> 0.60*	*> 0.40*	*> 0.708*	*> 0.708*	*> 0.50*	*< 0.08*	
Workplace Ostracism	WPO1	0.738	0.545	0.892	0.912	0.508	0.036	
	WPO2	0.720	0.518					
	WPO3	0.736	0.542					

	WPO4	0.689	0.475				
	WPO5	0.704	0.496				
	WPO6	0.759	0.576				
	WPO7	0.648	0.420				
	WPO8	0.713	0.508				
	WPO9	0.649	0.421				
	WPO10	0.764	0.584				
Moral Disengagement	MDG1	0.729	0.531	0.786	0.854	0.540	
	MDG2	0.756	0.572				
	MDG3	0.689	0.475				
	MDG4	0.767	0.588				
	MDG5	0.730	0.533				
	MDG6	*0.534*	*0.285*				
Cyberloafing	CYL1	0.912	0.832	0.976	0.979	0.808	0.107
	CYL2	0.903	0.815				
	CYL3	0.897	0.805				
	CYL4	0.905	0.819				
	CYL5	0.898	0.806				
	CYL6	0.907	0.823				
	CYL7	0.870	0.757				
	CYL8	0.901	0.812				
	CYL9	0.894	0.799				
	CYL10	0.909	0.826				
	CYL11	0.890	0.792				
Psychological Detachment	PLD1	0.835	0.697	0.877	0.916	0.731	0.340
	PLD2	0.877	0.769				
	PLD3	0.845	0.714				
	PLD4	0.863	0.745				
Cognitive Engagement	CGN1	0.905	0.819	0.951	0.961	0.803	0.664
	CGN2	0.906	0.821				
	CGN3	0.883	0.780				
	CGN4	0.896	0.803				
	CGN5	0.900	0.810				
	CGN6	0.884	0.781				

Note: Italic item is deleted due to poor outer loading.

4.3 Discriminant Validity

Discriminant validity was assessed to determine whether the latent constructs were empirically distinct from one another. Following Hair et al. (2019), both the Fornell–Larcker criterion and the heterotrait–monotrait ratio (HTMT) were examined. Under the Fornell–Larcker criterion, the square root of the average variance extracted for each construct, shown on the diagonal, exceeded its corresponding inter-construct correlations. As presented in Table 3, all constructs satisfied this requirement, confirming discriminant validity. In addition, all HTMT values, reported above the diagonal in Table 3, were below the recommended threshold of 0.85. Therefore, the results indicate that discriminant validity was adequately established for all constructs (Hair et al., 2019).

Table 3: Discriminant Validity Analysis

Constructs	WPO	MDG	CYL	PLD	CGN
Workplace Ostracism (WPO)	0.713	0.336	0.313	0.275	0.508
Moral Disengagement (MDG)	0.283	0.735	0.245	0.274	0.517
Cyberloafing (CYL)	0.296	0.216	0.899	0.412	0.759
Psychological Detachment (PLD)	-0.244	-0.228	0.381	0.855	0.043
Cognitive Engagement (CGN)	-0.470	-0.448	-0.732	-0.029	0.896

Diagonal values represent the square roots of AVE, while italicized values above the diagonal indicate HTMT ratios.

4.4 Structural Model

The variance inflation factor (VIF) was examined to assess potential multicollinearity among the predictor constructs. All VIF values were below the recommended threshold of 3.3, indicating that multicollinearity was not a concern in the structural model (Hair et al., 2019). Hypothesis-testing decisions were based on the corresponding *t*-statistics and *p*-values reported in Table 4. For a two-tailed test at the 5% significance level, a relationship was considered statistically significant when the absolute *t*-value exceeded ±1.96 and the *p*-value was below 0.05 (Haenlein & Kaplan, 2004). Accordingly, hypotheses meeting these criteria were considered supported, whereas those failing to meet them were considered unsupported. The structural model results supported all eight direct hypotheses. H1 proposed a positive effect of workplace ostracism on cyberloafing and was supported (β = 0.255, t = 7.350, p < .001), with a small effect size (f^2 = 0.067). Similarly, H2 confirmed that moral disengagement positively influenced cyberloafing (β = 0.144, t = 3.689, p < .001), although the effect size was small (f^2 = 0.021). H3 indicated that cyberloafing positively affected psychological detachment (β = 0.533, t = 18.582, p < .001), with a large effect size (f^2 = 0.385). In contrast, H4 showed that cyberloafing negatively influenced cognitive engagement (β = −0.613, t = 30.597, p < .001), with a substantial effect size (f^2 = 0.997). H5 demonstrated that workplace ostracism negatively influenced psychological detachment (β = −0.331, t = 10.461, p < .001), with a small effect size (f^2 = 0.143). H6 also confirmed a negative relationship between workplace ostracism and cognitive engagement (β = −0.217, t = 8.756, p < .001), with a small effect size (f^2 = 0.120). Moreover, H7 established that moral disengagement negatively affected psychological detachment (β = −0.250, t = 7.675, p < .001), with a small effect size (f^2 = 0.085). Finally, H8 showed that moral disengagement negatively influenced cognitive engagement (β = −0.254, t = 9.934, p < .001), with a moderate effect size (f^2 = 0.173). The structural model results are also illustrated in Figure 2.

Table 4: Hypothesis Testing

No.	Hypotheses	β	Mean	Standard deviation (STDEV)	T value	P values	VIF	Effect size (f^2)	Confidence interval		Decision
									2.5%	97.5%	
H1	WPO → CYL	0.255	0.259	0.035	7.350	0.000	1.087	0.067	0.192	0.323	Accept
H2	MDG → CYL	0.144	0.145	0.039	3.689	0.000	1.087	0.021	0.067	0.217	Accept
H3	CYL → PLD	0.533	0.535	0.029	18.582	0.000	1.119	0.385	0.484	0.590	Accept

H4	CYL → CGN	- 0.613	- 0.613	0.020	30.597	0.000	1.119	0.997	- 0.652	-0.575	Accept
H5	WPO → PLD	- 0.331	- 0.332	0.032	10.461	0.000	1.160	0.143	- 0.393	-0.267	Accept
H6	WPO → CGN	- 0.217	- 0.217	0.025	8.756	0.000	1.160	0.120	- 0.266	-0.169	Accept
H7	MDG → PLD	- 0.250	- 0.250	0.033	7.675	0.000	1.110	0.085	- 0.310	-0.189	Accept
H8	MGD → CGN	- 0.254	- 0.253	0.026	9.934	0.000	1.110	0.173	- 0.299	-0.201	Accept
Mediation Analysis												
H9	WPO → CYL → PLD	0.136	0.139	0.022	6.196	0.000	-	-	0.098	0.183	Accept
H10	WPO → CYL → CGN	- 0.156	- 0.159	0.022	7.040	0.000	-	-	- 0.203	-0.118	Accept
H11	MDG → CYL → PLD	0.077	0.077	0.021	3.592	0.000	-	-	0.036	0.119	Accept
H12	MDG → CYL → CGN	- 0.088	- 0.089	0.024	3.660	0.000	-	-	- 0.137	-0.041	Accept

Where; WPO- Workplace Ostracism, MDG- Moral Disengagement, CYL- Cyberloafing, PLD- Psychological Detachment Engagement, VIF- Variance Inflation Factor

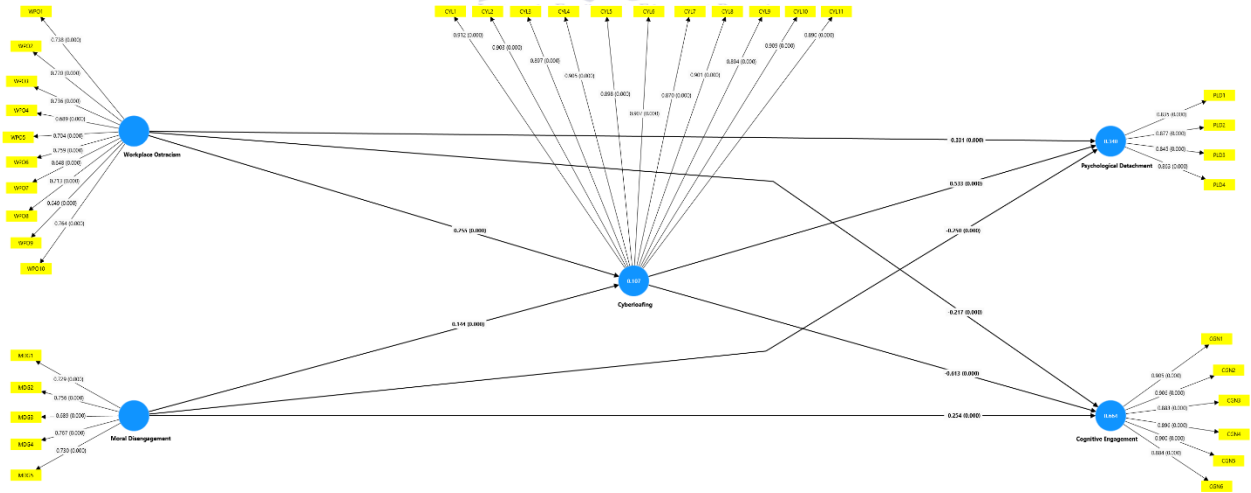


Figure 2: Hypotheses Analysis

4.5 Mediation Analysis

Mediation analysis is performed to examine the mediating role of cyberloafing. H9 is depicted that cyberloafing mediate relationship between workplace ostracism and psychological detachment, which is accepted and showing partial mediation as β= 0.136, t value= 6.196, p < 0.000, lower confidence interval (LCI) = 0.098 and upper confidence interval (UCI) = 0.183. H10 showed that cyberloafing mediate relationship

between workplace ostracism and cognitive engagement, which is accepted and showing partial mediation as β= -0.156, t value= 7.040, p < 0.000, LCI = -0.203 and UCI = -0.118. H11 proposed that cyberloafing mediate relationship between moral disengagement and psychological detachment, which is accepted and showing partial mediation as β= 0.077, t value= 3.592, p < 0.02, LCI = 0.036 and UCI = 0.119. H12 discussed that cyberloafing mediate relationship between moral disengagement and cognitive engagement, which is accepted and showing partial mediation as β= -0.088, t value= 3.660, p < 0.00, LCI = -0.137 and UCI = -0.041. Table 4 showing the mediation analysis results.

5. Discussion

The results supported all twelve hypotheses, showing that workplace ostracism and moral disengagement are important antecedents of cyberloafing among university faculty. The benefits of ostracism are supported by findings that excluded or belittled staff members resort to personal online behavior to avoid, compensate, or retaliate against their exclusion (Koay & Lai, 2023; Malik et al., 2025; Uslu, 2025). The moral disengagement effect suggests that an employee is more likely to engage in cyberloafing when they justify it as a reduced sense of harm, attribute responsibility to someone else, or feel that the act is deserved (Ohana et al., 2024; Usmani, 2025). In this regard, recent studies on workplace incivility also indicate that moral disengagement is linked to the tendency to engage in cyberloafing (Koay & Liew, 2026).

Psychological detachment was positively related to cyberloafing, while cognitive engagement was negatively related to cyberloafing. This is a confirmation of its ambivalent nature. The short-term turn-off of academic stressors may lead to some degree of detachment (Jamaluddin et al., 2023; Kwala & Agoyi, 2025; Lim & Teo, 2024). This finding is in line with employee studies and higher education research that found a higher level of detachment after cyberloafing (Levkov & Kitanovikj, 2024; Mihelič et al., 2023). However, the same practice presents obstacles to cognitive involvement, suggesting that cyberloafing can hinder sustained attention to a task and cognitive engagement (Krishna & Agrawal, 2023; Lu et al. 2024). Therefore, for temporary recovery, it does not necessarily follow that it will be effective.

The negative direct effects to psychological detachment and cognitive engagement demonstrate that ostracism is more than a fleeting nuisance. Rejected professors might also be ruminating about rejection after work and try spending mental energy on how to perceive interpersonal threats, which can make recovery difficult. This is consistent with the evidence that digital ostracism has negative effects on employee well-being and engagement because it causes isolation and communication problems (Chen, 2024). It also works with evidence that ostracism costs people emotionally and leads them to be more withdrawn (Rabiul et al., 2024). Exclusion can lead to poor wellbeing and recovery, and it can harm the ability to contribute to work and relationships, as detachment is a key predictor of wellbeing and is partly rooted in supportive boundaries and relationships (Baktash & Pütz, 2025; Blake et al., 2025; Sonnentag et al., 2024).

The effects of moral disengagement were also negative on both outcomes. The discovery suggests that rationalization is not a healthy way to recover and may keep continuing with grievance, avoidance and poor self-regulation. Tolerance of personal Internet use or the shifting of responsibility may provide faculty with temporary relief, but without the psychological disposition to establish total separation. However, turning off moral self-sanctions lowers the drive for being attentive and absorbed in academic tasks. This finding is consistent with previous findings that showed relationships between morally disengaged reasoning and cyberloafing, as well as other negative workplace behaviours (Cohen & Özsoy, 2025; Koay & Lai, 2023; Ohana et al., 2024; Usmani, 2025).

The four indirect effects were all significant. The effects of both antecedents of psychological detachment and cognitive engagement were conveyed through cyberloafing. Theory of mediation as a process of distance: cyberloafing

does provide the distance, but ostracism and moral disengagement are processes that stand in the way of healthier recovery. The mediating effects provide a more evident loss path for cognitive engagement: exclusion and moral rationalization lead to online withdrawal which leads to less focused investment. The finding complements the ones of Levkov & Kitanovikj (2024), Miheličˇ et al. (2023) for faculty employees and reinforces the need to differentiate low-intensity digital breaks from persistent cyberloafing (Hessari et al., 2025; Kwala & Agoyi, 2024; Nurtjahjanti et al., 2024).

6. Theoretical Implications

The study aligns with the social cognitive theory by combining environmental, cognitive, behavioral and psychological factors in a single faculty-work model. Workplace ostracism is the environmental cue, moral disengagement is the personal psychological regulation mechanism, and cyberloafing is the behavioral response and mediator of psychological outcomes. The results also advance the theory of cyberloafing as it illustrates how the act can have conflicting effects at the same time, leading to increased psychological detachment and decreased cognitive engagement. This calls into question the seemingly dichotomous notions of cyberloafing being either purely counterproductive or purely restorative. Furthermore, the important indirect effects indicate that psychological detachment may mediate in a competitive manner and cognitive engagement in a more consistent negative manner. Last, the study extends the relationships studied primarily in the context of corporate employees or students to faculty members in the higher education realm of Pakistan. This contextual extension reveals that digitally-enabled withdrawal is pertinent to professional knowledge work as well as that interpersonal exclusion and moral cognition work together to regulate attention and recovery in academics.

7. Practical Implications

Prevention of cyberloafing should be handled by controlling causes of cyberloafing, rather than solely through control of monitoring practices. Workplace ostracism can be minimized by clear communication, meeting everyone and giving everyone equal chance to participate, reporting informal ostracism, and by mentoring each other within departments. Prominent, clear digital-use expectations and ethical leadership can help to reduce moral disengagement without fostering a punitive atmosphere. A few online breaks should also be acknowledged as a faculty's opportunity to deal with stressful work. The need for digital escape is decreased when recovery opportunities are reasonable, workloads are manageable, one has autonomy, and one's supervisor respects work/nonwork boundaries. Faculty can build up the ability to recognize when a micro-break is necessary and how it differs from the cyberloafing that is a habit. Managers must judge outcomes and workload rather than take it as a given that work or production is happening on a screen all the time as cognitive engagement is at the heart of teaching and research quality. These four elements – including, recovering, ethical norms, and proportionate accountability – should be part of a balanced policy.

8. Limitations and Future Research Recommendations

There are several limitations that should be taken into consideration when interpreting the results. Firstly, the cross-sectional nature of the design limits the ability to draw strong causal inferences and does not allow us to conclude whether cyberloafing also leads to greater ostracism or moral disengagement in the future. Testing temporal ordering and the reciprocal effects should be addressed in the context of longitudinal, diary and experimental studies. Secondly, convenience sampling was conducted among universities of Punjab which further reduces the ability to generalize the findings to other provinces, countries, occupational groups and types of institutions. Further studies are needed based on probability-based or stratified samples for public and private institutions of higher education. Third, the variables were all self-reported which can lead to common method and

social desirability bias. Validity would be enhanced by multi-source data, behavioral indicators of digital use and supervisor-rated engagement. Fourth, cyberloafing was defined as a general concept, and short duration of low-risk use could be distinct from high-risk or frequent use. Comparisons between activity type, duration, motive and timing are suggested for future research. Other factors that could moderate the relationship between the recovery climate and social effects, such as workload, ethical leadership, organizational identification, self-control, and digital monitoring, should be analyzed.

9. Conclusion

This study explored an integrated model of workplace ostracism and moral disengagement to cyberloafing, psychological detachment, and cognitive engagement among faculty members in higher education institutions of Pakistan. All the direct and indirect relationships were supported by the questionnaire data of 737 faculty members of Punjab and results of analysis using PLS-SEM. Ostracism and moral disengagement in the workplace led to greater cyberloafing, and had a direct negative effect on psychological detachment and cognitive engagement. Cyberloafing, on the other hand, led to psychological detachment but to cognitive disengagement, and had significant mediating role between all the antecedents and both outcomes. The results indicate that cyberloafing does not always have a negative impact and does not always have a positive impact. It can offer immediate relief from challenging or exclusionary work situations but can also rob teachers, researchers, and administrators of their ability to focus on demanding tasks. Inclusive relationships, reasonable demands, and ethical self-regulation, however, are essential to healthy recovery, and these can never be replaced by the management of cyberloafing. The Pakistani universities can do their bit to make the exclusion of a minimum, strengthening of ethical norms a maximum, legitimate recovery a possibility and digital behavior a manageable one by reducing the exclusion, strengthening the ethical norms, making legitimate recovery possible and making digital behavior manageable. In sum, the study contributes to the understanding of the relationship between social experiences and moral cognition and their effects on digitally-mediated withdrawal and faculty functioning in higher education.

REFERENCES

Attiq, S., Jalil Shah, D. H., Anwar Golra, O., Ahmed Chohan, B., & Afzal, H. (2026). Intrusive, irritating, ignored: understanding Gen-Z's resistance to in-stream advertising. *Future Business Journal*, *12*(1), 139.

Baktash, M. B., & Pütz, L. (2025). Detach to thrive: Psychological detachment from work and employee well-being. *Journal of Happiness Studies, 26*, Article 54.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice Hall.

Bandura, A. (1999). Moral disengagement in the perpetration of inhumanities. *Personality and Social Psychology Review, 3*(3), 193–209.

Blake, H., Hassard, J., Thomson, L., Choo, W. H., Dulal-Arthur, T., Karanika-Murray, M., Delic, L., Pickford, R., & Rudkin, L. (2025). Psychological detachment from work predicts mental wellbeing of working-age adults: Findings from the 'Wellbeing of the Workforce' (WoW) prospective longitudinal cohort study. *PLOS ONE, 20*(1), e0312673.

Chen, N. (2024). The impact of workplace ostracism on employee well-being during the COVID-19 pandemic: A study of mediation effects of remote work challenges. *Transportation Research Interdisciplinary Perspectives, 26*, 101174.

Cohen, A., & Özsoy, E. (2025). The Dark Triad and cyberloafing: Unveiling the shadowy nexus. *Management Research Review, 48*(4), 625–642.

Ferris, D. L., Brown, D. J., Berry, J. W., & Lian, H. (2008). The development and validation of the Workplace Ostracism Scale. *Journal of Applied Psychology, 93*(6), 1348–1366.

Haenlein, M., & Kaplan, A. M. (2004). A beginner's guide to partial least squares analysis. *Understanding statistics*, *3*(4), 283-297.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd ed.). Sage.

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review, 31*(1), 2–24.

Hessari, H., Daneshmandi, F., Busch, P., & Smith, S. (2025). Mitigating cyberloafing through employee adaptability: The roles of temporal leadership, teamwork attitudes, and competitive work environment. *Asia-Pacific Journal of Business Administration, 17*(2), 303–336.

Jamaluddin, H., Ahmad, Z., & Liew, T. W. (2023). Exploring cyberloafing as a coping mechanism in relation to job-related strain and outcomes: A study using the mediational model of stress. *Cogent Social Sciences, 9*(2), Article 2278209.

Krishna, S. M., & Agrawal, S. (2023). Cyberloafing: Exploring the role of psychological wellbeing and social media learning. *Behavioral Sciences, 13*(8), Article 649.

Koay, K. Y., & Lai, C. H. Y. (2023). Workplace ostracism and cyberloafing: A social cognitive perspective. *Management Research Review, 46*(12), 1769–1782.

Koay, K. Y., & Liew, M. X. (2026). How and when workplace incivility drives cyberloafing: The moderating roles of negative reciprocity beliefs and political skill. *Asia-Pacific Journal of Business Administration*. Advance online publication.

Kwala, A. F., & Agoyi, M. (2024). The nexus between cyberloafing and employee well-being: Role of creativity in the Nigerian service sector. *Humanities and Social Sciences Communications, 11*, Article 1673.

Kwala, A. F., & Agoyi, M. (2025). The influence of cyberloafing on workplace outcomes: A study utilizing the Job Demands-Resources (JD-R) theory. *SAGE Open, 15*(1), Article 21582440251327521.

Kyambade, M. (2025). Work from home can be distracting: Exploring the moderation role of transformational leadership on teleworking and cyber-slacking. *Cogent Education, 12*(1), Article 2450115.

Levkov, N., & Kitanovikj, B. (2024). How cyberloafing affects students' cognitive engagement and psychological detachment in higher education classes? *International Journal of Technology in Education, 7*(4), 870–882.

Lim, V. K. G. (2002). The IT way of loafing on the job: Cyberloafing, neutralizing and organizational justice. *Journal of Organizational Behavior, 23*(5), 675–694.

Lim, V. K. G., & Teo, T. S. H. (2024). Cyberloafing: A review and research agenda. *Applied Psychology, 73*(1), 441–484.

Lu, X., Wang, Y., Chen, X., & Lu, Q. (2024). From stress to screen: Understanding cyberloafing through cognitive and affective pathways. *Behavioral Sciences, 14*(3), Article 249.

Malik, O. F., Bhatti, I., & Sillah, K. (2025). Linking social undermining to cyberloafing: Cross-sectional and cross-lagged panel investigations. *Cogent Business & Management, 12*(1), Article 2491681.

IEER
Institute for Excellence in Education & Research

Mihelič, K. K., Lim, V. K. G., & Culiberg, B. (2023). Cyberloafing among Gen Z students: The role of norms, moral disengagement, multitasking self-efficacy, and psychological outcomes. *European Journal of Psychology of Education, 38*(2), 567–585.

Moore, C., Detert, J. R., Treviño, L. K., Baker, V. L., & Mayer, D. M. (2012). Why employees do bad things: Moral disengagement and unethical organizational behavior. *Personnel Psychology, 65*(1), 1–48.

Nitzl, C., Roldán, J. L., & Cepeda, G. (2016). Mediation analysis in partial least squares path modeling: Helping researchers discuss more sophisticated models. *Industrial Management & Data Systems, 116*(9), 1849–1864.

Nurtjahjanti, H., Hidayat, R., & Indrayanti. (2024). Development and psychometric evaluation of the Employee's Workplace Cyberloafing Scale (EWCS). *Heliyon, 10*(20), e39376.

Nweke, G., Jarrar, Y., & Horoub, I. (2024). Academic stress and cyberloafing among university students: The mediating role of fatigue and self-control. *Humanities and Social Sciences Communications, 11*, Article 419.

Ohana, M., Murtaza, G., Haq, I. U., Al-Shatti, E., & Chi, Z. (2024). Why and when can CSR toward employees lead to cyberloafing? The role of workplace boredom and moral disengagement. *Journal of Business Ethics, 189*(1), 133–148.

Peng, J., Nie, Q., & Chen, X. (2023). Managing hospitality employee cyberloafing: The role of empowering leadership. *International Journal of Hospitality Management, 108*, Article 103349.

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879–903.

Rabiul, M. K., Alam, M. M., & Karim, R. A. (2024). Workplace ostracism and service-oriented behaviour: Employees' workload and emotional energy. *Management Decision, 62*(4), 1323–1340.

Rich, B. L., LePine, J. A., & Crawford, E. R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal, 53*(3), 617–635.

Sonnentag, S., & Fritz, C. (2007). The Recovery Experience Questionnaire: Development and validation of a measure for assessing recuperation and unwinding from work. *Journal of Occupational Health Psychology, 12*(3), 204–221.

Sonnentag, S., Kark, R., & Venz, L. (2024). Leader support for recovery: A multilevel approach to employee psychological detachment from work. *Journal of Occupational and Organizational Psychology, 97*(4), 1762–1788.

Uslu, O. (2025). Exploring the link between cyberloafing and work-related factors: A decade of systematic analysis. *Technology in Society, 83*, Article 102997.

Usmani, S. (2025). Empirical analysis of job design and social cyberloafing via moral disengagement and work boredom. *SA Journal of Human Resource Management, 23*, Article a3233.

Wu, J., Mei, W., Liu, L., & Ugrin, J. C. (2020). The bright and dark sides of social cyberloafing: Effects on employee mental health in China. *Journal of Business Research, 112*, 56–64.

IEER Institute for Excellence in Education & Research

Wu, Q., Qi, T., Wei, J., & Shaw, A. (2023). Relationship between psychological detachment from work and depressive symptoms: Indirect role of emotional exhaustion and moderating role of self-compassion. *BMC Psychology, 11*, Article 344.

Zhang, N., Liu, X., Li, J., & Xu, Z. (2023). The spillover effect of after-hours electronic communication on nurses' cyberloafing: The mediating role of psychological contract breach. *BMC Nursing, 22*, Article 335.

IEER
Institute for Excellence in Education & Research