

From Social Exclusion to Digital Deviance: A Conditional Process Model of Emotional Exhaustion and Work Engagement

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ABSTRACT: The increased use of smartphones and internet-enabled technologies in workplaces has amplified concerns about cyberloafing behavior, particularly in IT-based organizations. Drawing on the Conservation of Resources theory, this study examines the relationship between workplace ostracism and cyberloafing among employees, specifically investigating the mediating role of emotional exhaustion and the moderating role of work engagement. Data were collected from 174 information technology (IT) professionals working in Pakistan through a survey-based research design. Hayes' PROCESS macro was employed to test the mediation and moderation effects, analyzing whether emotional exhaustion serves as a mechanism linking workplace ostracism to cyberloafing and whether work engagement weakens this relationship. The findings indicate that workplace ostracism is positively associated with cyberloafing behavior. Emotional exhaustion significantly mediates this relationship, suggesting that employees who experience social exclusion are more likely to engage in cyberloafing due to depleted emotional resources. Furthermore, work engagement moderates the relationship, such that the positive effect of workplace ostracism on cyberloafing is weaker among employees with higher levels of engagement. The study is based on cross-sectional data collected from IT professionals in Pakistan, which may limit causal inferences and the generalizability of findings to other industries and cultural contexts. The results highlight the importance of fostering inclusive workplace environments, reducing experiences of exclusion, managing emotional exhaustion, and strengthening work engagement to mitigate cyberloafing. This study extends the cyberloafing literature by integrating workplace ostracism, emotional exhaustion, and work engagement within a moderated mediation framework and offers evidence from a collectivist developing-country context characterized by rapid smartphone adoption.

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Introduction

The advent of digital communication tools, particularly smartphones, has dramatically transformed the dynamics of modern workplaces and has become an indispensable tool across industries (Aschoff, 2020). These devices enable real-time connectivity, remote collaboration, and faster decision-making, especially in technology-driven environments like Information Technology (IT) firms. However, this increased connectivity comes with an undercurrent of concern, as smartphones blur the boundaries between professional and personal spaces; they have also become avenues for distractions in the form of *cyberloafing* - a phenomenon that refers to employees using internet-enabled devices for non-work-related activities during office hours. It has been found that employees easily abandon their duties and responsibilities because of internet facilities in organizations, leading to cyberloafing at every level, both through company or personal internet access, particularly in technology-based organizations, causing monetary losses to firms (Lu et al., 2024). This has led to many negative outcomes, including poor employee performance, reduced work satisfaction, lowered organizational productivity, and increased risk of legal liability and information security breaches.

Cyberloafing is a surreptitious type of deviant workplace behavior, causing a great challenge for organizational workplace practices where unchecked cyberloafing negatively affects productivity, data security, and cohesion of the team (Saxena & Srivastava, 2023). This also significantly affects both individual and organizational productivity. Cyberloafing can trigger dangerous activities such as accessing questionable sites, unlicensed software, and information risks to the company. There is thus a need to focus not only on these emerging problems of cyberloafing but also to develop policies and directions for responsible use of internet facilities. One major factor for such behavior is workplace ostracism – a type of social exclusion whereby an employee is ignored, left out, or rejected by peers and supervisors (Ferris et al., 2008). Extant research requires a deeper understanding of such workplace behaviors and their impact on employees' performance to develop a win-win situation.

Workplace ostracism has emerged as a salient organizational issue due to its subtle yet damaging nature. Unlike overt conflict, ostracism is passive and often unacknowledged, making it a silent killer of motivation and engagement (Koay & Lai, 2023). Ostracism also develops through working under pressure and competitive environments, leading to social cliques, favoritism, or even toxic conduct in the workplace. Ostracized employees tend to feel alienated from the rest of the employees, lose trust and confidence in their colleagues, and experience weakened morale and organizational identity (Kaushal et al., 2021). Such experiences are believed to stimulate psychological withdrawal that leads an individual to seek alternative engagement or satisfaction through digital means such as browsing social media, shopping online, or watching videos during working hours (Koay et al., 2022). It has been found that workplace ostracism causes emotional exhaustion, which leads to counterproductive work behavior, including cyberloafing (Lim et al., 2021; Maslach & Jackson, 1981; Saxena & Srivastava, 2023; Wang et al., 2023), reduced job performance, and high turnover intentions (Zhu & Zhang, 2021). Therefore, emotional exhaustion plays a vital role as a mediating process that helps to unravel how social stress in the work environment turns into adverse behavioral outcomes.

Individual differences in work engagement may explain why some employees are more resilient in the face of ostracism (De Clercq & Pereira, 2024). Work engagement refers to a positive, fulfilling work-related state of mind characterized by vigor, dedication, and absorption (Schaufeli et al., 2002). Employees who are highly engaged are more likely to stay focused and committed to their tasks, even when facing interpersonal challenges. In contrast, those with low engagement levels may be more inclined to disengage and divert their attention to non-work-related activities during office hours. Thus, work engagement may moderate the relationship between ostracism and cyberloafing (Hu et al., 2023).

The theoretical resolution is provided by the Conservation of Resources theory (COR), according to which individuals work toward gaining, possessing, and securing their resources (Hobfoll, 1989). The COR highlights that individuals employ coping strategies in response to resource depletion (Lim et al., 2021) and explains emotional exhaustion (Li et al., 2023). COR conceptualizes the depletion of energy, attention, and emotional resilience as emotional exhaustion that leads to coping strategy behavior like cyberloafing (Lim et al., 2021). Further, according to COR, cyberloafing arises from resource depletion due to negative leadership behaviors to keep the psychological resource intact.

In collectivist cultures such as Pakistan, where social harmony, inclusion, and interpersonal relationships are critical to the functioning of an organization (Ayoko, 2022), the consequence of ostracism is even greater. Workplace ostracism, which is commonly subtle and challenging to distinguish, has been demonstrated to hurt the emotional health of employees and cause psychological distress, disengagement, and counterproductive behaviors (Zhu & Zhang, 2021). With the increase in digital device accessibility, Pakistani workplaces have seen a surge in smartphone use, often unregulated, and leading to concerns about misuse. The situation is further complicated in collectivist cultures where interpersonal relationships are paramount, and professional well-being is tightly interwoven with social acceptance. Empirical investigations have revealed that employees who perceive social exclusion are likely to cyberloaf as revenge and for emotion regulation (Saxena & Srivastava, 2023). Furthermore, a lack of restriction on access to technology coupled with less oversight in remote or hybrid work environments only contributes to the occurrence of cyberloafing in IT companies (Sharma & Dhar, 2024). There is limited empirical research on workplace cyberloafing in the Pakistani context with diverse organizational, social, and cultural dimensions (Khawar, 2023). The hierarchical structures, power distance, and collectivist values prevalent in Pakistani workplaces need to be studied for the effects of ostracism. Moreover, with the rapid penetration of digital devices and increased reliance on IT, understanding the psychosocial impact of smartphone use becomes essential.

Consequently, the goal of this research is to examine how workplace ostracism is related to cyberloafing in Pakistani IT firms, with emphasis on whether emotional exhaustion has a mediating effect and whether work engagement serves as a moderator. Though emotional exhaustion caused by poor workplace behavior is typically recognized, how it acts as a link between ostracism and cyberloafing has not been fully studied. Although various international studies have considered the effects of workplace ostracism on employees' conduct in workplaces, there is a paucity of studies examining this phenomenon in developing nations, as well as industry environments characterized by technology. Much fewer still have examined the underlying mechanisms (e.g., emotional exhaustion) and boundary conditions (e.g., organizational commitment) that moderate this relationship. There is an increased need to expand the existing models to accommodate such variables and to test them in a particular cultural and industrial context (Dvir & Nagar, 2025).

Literature Review & Hypothesis Development

Cyberloafing is defined as the use of the workplace internet for unrelated work (Lu et al., 2024). This behavior includes the unproductive and harmful activities of personal emailing, unrelated websites, music, and watching videos that divert workers' attention and harm organizational performance. The current working conditions are now driven by fast technological advancements, creating complex jobs, increased competition, unclear work and personal life boundaries due to innovations and growing internet, leading to cyberloafing and impacting both employee and organizational productivity.

Workplace Ostracism and Cyberloafing

Workplace ostracism is the state of getting excluded, ignored, and dismissed by others in the context of the workplace setting. In contrast to bullying or harassment, ostracism unknowingly targets the employees in the organizations, making it more harmful (Nasir et al., 2024). Recent studies show workplace ostracism is an effective psychosocial

stressor that challenges an individual's inclusion, self-esteem, and emotional comfort. When employees feel left out, they are likely to become mentally withdrawn and detach from organizational objectives (Li et al., 2021). This withdrawal can take the form of cyberloafing, a term coined by Lim (2002), in which internet access is used for non-work-related activities during working hours. Activities such as visiting social media, online shopping, watching videos, or messaging friends are examples of such behavior. While it may appear that such activities may not be harmful or rather casual, the collective effects on the performance of employees, the safety of data experienced in their work environment, and ethics can all be impactful. The social pain caused by ostracism has profound psychological effects since human beings have an inborn desire to belong, be included in a group, and this holds true in collectivist cultures like Pakistan, where interpersonal harmony is considered a valued cultural norm (Kaushal et al., 2021).

The relationship between ostracism and cyberloafing can be perceived from a coping theory perspective. Exclusion undermines an employee's emotional balance, and he/she becomes more likely to practice avoidant coping to diminish the psychological distress. Cyberloafing becomes a new vehicle of escapism as people have an opportunity to temporarily disconnect themselves from the poisonous social life and get engulfed in the digital world, whereby they receive validation, entertainment, or diversion (Koay & Lai, 2023).

Smartphones, laptops, and open internet create private and untracked entry in cyberspace with a low-risk avenue for disassociated or left-out employees. Hu et al. (2023) reported that the smooth integration of digital tools into the daily lives of people has blurred the line between work and personal life, whereby employees can cyberloaf in ways that are difficult to notice. More to this, research has shown that ostracism triggers self-protective behavior such as passive resistance and covert types of deviance. In most cases, cyberloafing is not a deliberate sabotage but a psychological defense against stressors in the workplace that are mitigating the level of stress (Koay & Lai, 2023). The excluded employees could get some temporary relief through social media validation, conversations online or entertainment that would account for the absence of socialization at the workplace.

Socio-technically, the interactive relationship between human behavior and technology also enhances why cyberloafing is a common reaction to ostracism (Zhu & Zhao, 2024). As a result of increased autonomy, flexible work arrangements, and remote work structures in IT and tech-based organizations, monitoring and controlling employees' use of the internet becomes more complicated. As opposed to employees who are socially excluded, these employees will often not feel accountable to teams or supervisors, and they use the perceived invisibility to cyberloaf without having to worry about consequences. Furthermore, the Affective Events Theory (AET) proposes that there are certain events at the workplace (e.g., ostracism) that may trigger emotional responses (e.g., frustration, sadness) that in turn influence behavior (e.g., withdrawal or deviance). Under this frame, ostracism through emotional strain results in negative affective states that further spark behavioral consequences such as cyberloafing (Li et al 2021). Thus, cyberloafing does not only result from the lack of work ethic or laziness; it is usually an indicator of more underlying organizational and emotional problems.

In a collectivist culture like in Pakistan, relational harmony and group cohesion are of the essence. Therefore, workers' feelings can be not only bruised but also their professional identity and the feeling of belonging can be disrupted if we speak about their being socially excluded at work. This could answer the reason why these employees seek out online platforms as pseudo-communities where they can get connection and validation that they don't receive in the physical working space (Kaushal et al., 2021). Long-term impacts are reduced work engagement, lower productivity, and dissolution of the culture in the organization. Early recognition of signs of social exclusion and arranging team-building activities, psychological safety, and emotional support may prevent the development of compensatory behavior, such as cyberloafing (Hessari et al., 2025).

H1: Workplace ostracism is positively related to cyberloafing.

Workplace Ostracism and Emotional Exhaustion

In comparison to outright aggression or harassment, ostracization is defined by subtle hints of isolation from the meetings, neglect in conversation and social isolation that gradually destroys the feeling being valuable for the organization (Chen & Li, 2020). These latent forms of social exclusion pose a lot of harm because they are vague, hard to manage, yet ignored by the perpetrators and organizational authorities (Al-Atwi et al., 2024). The ostracized employees self-question their self-worth, identity, and socialization every time they encounter silence or rejection. This continuous questioning and internalizing of unpleasant events leads to emotional exhaustion, termed as the feeling of being emotionally overextended and lacking emotional resources (Maslach & Jackson, 1981). Emotional exhaustion is the form of job burnout that is considered to be the first symptom that occurs when people encounter chronic stress at work (Chen & Li, 2020).

The assumption between ostracism and emotional exhaustion is assisted by both the social exchange theory and the conservation of resources (COR) theory (Dooley, 2021). According to social exchange theory, relationships are give-and-take in nature; when employees put emotional and cognitive effort into their working relations only to be dumped or excluded, the sense of betrayal and physical and emotional exhaustion result. COR theory continues to explain that workplace ostracism saps crucial personal resources, including emotional energy, self-esteem, and feelings of belonging – resources important for coping and resilience. Exclusionary behavior at workplaces causes the perception of loss of psychological safety (Ayoko, 2022), which makes employees suppress emotions, be hypervigilant, or socially withdraw, which entails a lot of emotional energy. This constant consumption of emotional reserves leads to bodily and psychological incapacity, detachment, and insufficiency at work and impairs emotional regulation. Such a condition further causes emotional exhaustion and additional withdrawal from organizational activities and socialization.

Empirical research in organizational settings regarding emotional exhaustion and ostracism by Wang et al. (2023) has established that workplace ostracism significantly predicts emotional exhaustion amongst IT employees with low interpersonal support. It has been noted that ostracized employees experience a double burden leading to cognitive dissonance that depletes one's emotional reserves at a faster rate than other work stressors. In IT organizations, this leads over time to turnover intentions and turnover, especially in high-stress fields such as IT, where teamwork and innovation are so important (Mahfooz et al., 2017). Interestingly, the cultural significance of a collectivist society makes ostracism not merely a professional blow but a social and moral defeat to the person victimized which hastens the road to exhaustion. The identification of emotional exhaustion as a mediating factor is important in organizing interventions that would serve to prevent ostracism as well as its harmful consequences.

H2: Workplace ostracism is positively related to emotional exhaustion.

Emotional Exhaustion and Cyberloafing

Whenever emotional resources are depleted, people have a hard time managing their behaviors and emotions as expected by the organization. This draining of psychic energy often results in a greater propensity for cyberloafing as a coping mechanism (Malik et al., 2025). The Job Demands-Resources (JD-R) model by Karasek and Theorell (1990), describes this phenomenon as the proponent explains that if job demands, such as emotional labor, conflict, or ostracism, exceed available resources – support or autonomy, the employee will face strain that will work against. This constant mismatch of job duties and personal capacity leads to emotional exhaustion (Bakker & de Vries, 2021). Thus, cyberloafing is transformed into an effortless, easily affordable psychological and instant escape from stress and repetitiveness (Ayoko, 2022).

The relationship is also supported by cognitive control theory, which suggests that emotional exhaustion hinders the executive functioning in the brain, which regulates one's behavior. Overworked employees are more vulnerable to impulsive actions such as constant access to their personal messages, watching videos, and use of social media, which do not take much mental resources, but give instant pleasure (Mercado et al., 2017). While these acts may appear to be innocuous, they take attention away from organizational work, and the general productivity is compromised. Thus the emotional separation due to exhaustion leads to disregard for work norms, and lessens the psychological cost of pursuing such counterproductive activities as cyberloafing. Cyberloafing can, over time, become something regular instead of an instance of random coping behavior, especially in digital workspaces such as IT companies, where the employees can access the online window almost around the clock.

In high-stress industries such as Pakistan's IT industry, emotional exhaustion is heightened by extended working hours, rigid project periods, no work-life balance, and paucity of support from the organizations. Such conditions increase the occurrences of cyberloafing, especially when distracters are digitally available and normatively acceptable (Obaid, 2024). In the wake of the shift from traditional workplaces to remote or hybrid setups, virtual supervision of employees becomes more challenging, thereby giving emotionally exhausted employees a greater chance to detach from work through online distractions.

Findings from research further confirm the relationship between emotional exhaustion and cyberloafing as Zhang et al. (2022) reported that emotional exhaustion has a substantive longitudinal relationship with both the rates and lengths of cyberloafing activity. Additionally, Mercado et al. (2022) found that the employees who reported higher emotional exhaustion also spent a lot more time browsing the internet and using social media while on the job. Based on these studies we develop the second hypothesis.

H3: Emotional exhaustion is positively related to cyberloafing.

Mediation of Emotional Exhaustion

Ostracism in the workplace, a conniving tool of social rejection, interferes with an individual's psychological and emotional well-being. When workers are continually overlooked and not involved in decision-making, and treated socially as outcasts at the workplace, they undergo psychological strain, which normally manifests in terms of emotional exhaustion – a state of emotional drainage and failure to cope well (Al-Atwi et al., 2024). This exhaustion, in turn, is a very vital psychological mechanism that helps to explain why cyberloafing behavior will be common with ostracized individuals.

The mediating function of emotional exhaustion is based on the Conservation of Resources (COR) theory (Hobfoll, 1989), which postulates that people are motivated to acquire, gain, and preserve desirable resources, for instance, emotional energy, social support, and self-esteem. Workplace ostracism endangers these critical resources, which triggers a defensive psychological response with the characteristics of withdrawal and disengagement (Wang et al., 2023). Since excluded workers find it difficult to handle their feelings, the drain of emotional resources makes them more vulnerable to resorting to non-work-related digital activities, such as browsing social media or viewing videos, which are cyberloafing activities.

This mechanism is attested by recent empirical studies as reported by Li et al. (2021), that emotional exhaustion becomes a considerable mediator in the relationship between workplace ostracism and cyberloafing as a counterproductive work behavior. Their research proved that ostracism leads to emotional burden, which diminishes cognitive control, thereby creating a higher possibility of employees withdrawing to digital distractions as a recovery process. Also, Farid et al. (2023) found that emotional exhaustion not only mediates but also aggravates the behavioral outcome of social exclusion in the workplace. Furthermore, emotional exhaustion is a cognitive filter that distorts job roles, support structures, and personal efficacy. Ostracized employees feel hopeless and disconnected

from the goals of the organization. Cyberloafing provides emotional survival at the workplace and thus deepens even further the mediating effects of emotional exhaustion.

In the Pakistani IT setting, where long working hours, competitive performance measures, and the dependence on technology become a norm, the tendency of cyber loafing is even greater. Workers in the high-stress, digitally connected settings might get more fatigue due to the fact that they are ostracized from the groups they have to work with, or they are part of virtual meetings (Mahfooz et al., 2017). The nature of digital work in IT also allows the emotionally exhausted employees to disengage effortlessly without being noticed through cyberloafing behaviors. Also, the dynamics of genders and age groups in Pakistani workplaces can make the occurrences of ostracism more palpable. For instance, women or junior professionals may experience more exclusion in male-engineered tech groups, thus increasing the emotional strain and greater use of passive coping methods, such as cyberloafing. This stipulates the presence of a greater cultural and organizational factor that moderates the relation between ostracism, emotional exhaustion, and outcomes. Therefore, according to theoretical frameworks and obtained empirical evidence, we hypothesize the following mediation mechanism:

H4: Emotional exhaustion mediates the relationship between workplace ostracism and cyberloafing.

Work Engagement as a Moderator

Cyberloafing, can be affected by the individual-level psychological capital, whereby work engagement emerges as a central moderator in such a relationship (Tandon et al., 2022). Work engagement, as the positive, fulfilling, work-related state including vigor, dedication, and absorption has a protective function of buffering the effects of stressors. Fully engaged employees are motivated from inside, psychologically committed, and emotionally resilient, which helps them stay concentrated on the tasks even in a socially disadvantaged position (exclusion or ostracism) (Wang et al., 2021). When these people experience ostracism, they will be less likely to resort to maladaptive coping strategies such as cyberloafing, for their deep psychological commitment to work forms the basis of their purpose and perseverance. On the other hand, low-work-engaged employees are more susceptible to workplace stressors (Sharma & Dhar, 2024).

This moderating role has received empirical support from recent studies. In research performed among Chinese technology employees, Chen (2024) determined that high work engagement strongly moderated the positive relationship between workplace ostracism and cyberloafing. Similarly, Attaullah & Afsar et al. (2021) have found that when the IT employees in Pakistan expressed high engagement, the adverse effect of social exclusion on their behavioral outcomes was significantly attenuated. In addition, work engagement boosts psychological resilience so that people are able to reframe ostracism as a transient barrier, and not a lingering threat (Ahmad et al., 2022). As can be expected, engaged employees are also likely to be more proactive in re-establishing social connections or in accomplishing their tasks, thus ensuring that they do not fall into counterproductive activities (Khawar, 2023). This dynamic is consistent with the Job Demands-Resources model, which holds that personal resources such as engagement may buffer effects of job demands, like ostracism, on burnout and deviance.

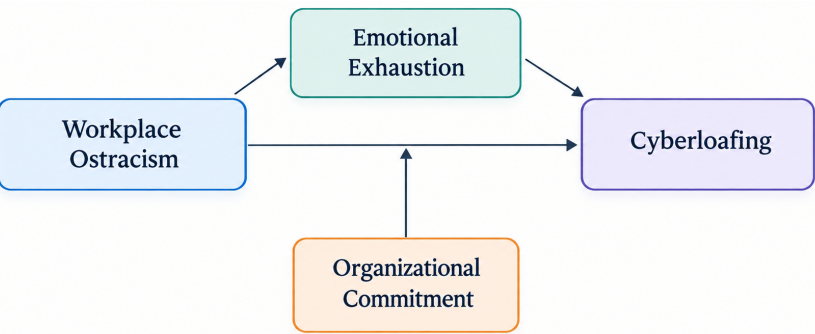
Managerially, the creation of work engagement may be a strategic protection against the harmful impacts of exclusion in the workplace. Organizational interventions like supportive leadership, meaningful work distribution, skill development, and frequent feedback can tremendously boost employer engagement levels (Singh et al., 2023). These interventions help produce an appreciation and bond that reduces the prospects of social withdrawal and ensures workers are psychologically and psychologically attached to their work. It is as such that in the context of this study, we state the following moderation hypothesis:

H5: Work engagement moderates the relationship between workplace ostracism and cyberloafing.

Conceptual Framework

The conceptual model for this study is developed based on existing theoretical foundations and prior empirical evidence. It is designed to illustrate the hypothesized relationships between the study variables: Workplace Ostracism, Cyberloafing, Emotional Exhaustion, and Work Engagement. This framework is based on theoretical models that explain stress-coping behaviors in organizational settings (Karasek & Theorell, 1990) and engagement literature (Schaufeli et al., 2002).

Figure 1
Conceptual Model



Research Design and Approach

This research adopts a quantitative approach using across-sectional survey design to examine the effects of workplace ostracism on cyberloafing among IT professionals in Pakistan. The study also investigates emotional exhaustion as a mediating variable and work engagement as a moderating factor. The quantitative method was selected to allow for objective measurement and statistical analysis of the relationships between the variables, enhancing the validity and generalizability of the findings (Creswell, 2014).

The target population comprised IT employees working in project-based teams within software firms in Pakistan. The study used a non-probability convenience sampling technique, which is commonly used in behavioral sciences when the population is difficult to access (Babbie, 2020). A total of 174 responses were collected and analyzed. The sample size was considered sufficient based on the recommendations by Krejcie and Morgan (1970) for statistical representativeness.

Data were collected through a self-administered structured questionnaire, distributed both physically and via email and online platforms such as Google Forms. The questionnaire was developed using standardized scales from prior validated studies to ensure reliability and consistency. Participation was voluntary and anonymous to promote honest and unbiased responses.

Research Instruments and Measurement Scales

A five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) was used to measure the constructs. The following scales were employed:

Table 1
Measurement Scale

Variable	No. of Items	Source
Workplace Ostracism	10	Ferris et al. (2008)
Emotional Exhaustion	9	Maslach & Jackson (1981)
Cyberloafing	7	Lim (2002)
Work Engagement	9	Schaufeli et al. (2002)

Data Analysis Tools and Techniques

The data were analyzed using IBM SPSS Statistics 25. Descriptive statistics were used to examine the demographic profile and the central tendencies of the responses. To test the hypotheses, Hayes’ PROCESS macro (Model 4 and Model 14) was used to conduct mediation and moderation analyses, respectively (Hayes, 2013). The specific steps of analysis included:

- ▶ Descriptive Analysis (Mean, SD)
- ▶ Reliability Analysis (Cronbach’s Alpha)
- ▶ Correlation Matrix
- ▶ Regression Analysis
- ▶ Mediation Analysis (Model 4)
- ▶ Moderation Analysis (Model 14)

Reliability of Instruments

Reliability analysis was conducted using Cronbach’s Alpha. All scales showed acceptable reliability coefficients:

Table 2
Reliability Analysis (Cronbach’s Alpha)

Construct	Cronbach’s Alpha
Workplace Ostracism	0.87
Emotional Exhaustion	0.91
Cyberloafing	0.83
Work Engagement	0.89

These values indicate that the instruments used are internally consistent and reliable for the intended research.

RESULTS

Descriptive Statistics

Descriptive statistics were computed for each variable to understand central tendencies and data dispersion. The mean values indicate general tendencies of the participants, while the standard deviation highlights variation in responses.

Table 3
Descriptive Statistics

Variable	Mean	Standard Deviation
Workplace Ostracism	3.75	0.89
Emotional Exhaustion	3.62	0.83
Cyberloafing	3.41	0.76
Work Engagement	3.88	0.71

Correlation Analysis

Pearson correlation analysis was conducted to examine the relationships between key constructs. Workplace ostracism was positively correlated with emotional exhaustion ($r = 0.51$) and cyberloafing ($r = 0.45$). Emotional exhaustion also showed a significant positive correlation with cyberloafing ($r = 0.48$).

Table 4
Correlation Matrix

Variable	1	2	3	4
1. Workplace Ostracism	1			
2. Emotional Exhaustion	0.51**	1		
3. Cyberloafing	0.45**	0.48**	1	
4. Work Engagement	-0.32**	-0.35**	-0.29**	1

Note: p< .01

Regression Analysis

Regression analysis was conducted to test the direct and mediated relationships. Table 5 presents the summary of the regression results for hypothesis testing.

Table 5
Regression Summary

Hypothesis	β	SE	t	p	95% CI
H1	0.6822	0.0855	7.9812	0.000	[0.5135, 0.8510]
H2	0.1500	0.0189	7.9290	0.000	[0.1127, 0.1873]
H3	0.1842	0.0604	3.0482	0.003	[0.0648, 0.3037]

These results affirm the positive relationships proposed in the hypotheses, indicating that ostracism is not only harmful on its own but also leads to emotional exhaustion, which exacerbates unproductive behaviors.

Mediation Analysis

Hayes’ PROCESS Macro (Model 4) was applied to test the mediating role of emotional exhaustion in the ostracism–cyber loafing relationship.

H4: Emotional exhaustion mediates the relationship between workplace ostracism and cyber loafing.

Table 6
Emotional exhaustion mediates the relationship between workplace ostracism and cyber loafing

Direct Effect of X (Workplace Ostracism) on Y (Cyber Loafing)					
Effect	se	t	p	LLCI	ULCI
0.6822	0.6822	0.6822	0.6822	0.6822	0.6822
Direct Effect of X (Workplace Ostracism) on Y (Cyber Loafing)					
Effect	BootSE	BootLLCI		BootULCI	
0.1455	0.1455	0.1455		0.1455	

Furthermore, it establishes that Emotional Exhaustion fully mediates the relationship between Workplace Ostracism and Cyber loafing, as it presents both direct and indirect impacts from Workplace Ostracism on Cyber loafing. The direct effect of workplace ostracism on cyber loafing is the coefficient 0.6822 when it comes to multiple entries. This shows that Workplace Ostracism has a direct and positive correlation with cyberloafing, as shown by the higher level of ostracism meaning higher levels of cyberloafing. They have provided t-value and p-value, which analytically is significant regardless of the new format provided, which means that such a direct effect is significant.

The coefficient for Emotional Exhaustion that mediates the relationship between Workplace Ostracism and Cyber Loafing is found to be 0.1455. The BootSE (Bootstrapped Standard Error) value is a significant 0 at 0.0627 and indicates that the effect is reliable. The BCI (Bootstrapped Confidence Interval) for the indirect effect is BootLLCI= 0.0231 and BootULCI = 0.2679. Furthermore, zero is not contained in the BootLLCI and Boot UL CI, hence we conclude that the mediation effects are statistically significant.

This result supports the hypothesis that Emotional Exhaustion helps to determine why Workplace Ostracism results in cyberloafing. Since the direct impact of Workplace Ostracism on both Cyber loafing and the indirect impact using Emotional Exhaustion has been confirmed statistically, H4 is accepted. Emotional exhaustion demonstrates a partial mediation effect in the relationship between perceived WO and cyber loafing, and this mediation effect is statistically significant.

Moderation Analysis

Using PROCESS Macro Model 14, we tested the moderating effect of work engagement.

Table 7

Organizational Commitment Moderates the Relationship between Workplace Ostracism and Cyber Loading

	coeff	R2	F	t	P
WO x OC	.6556	.0151	4.0064	7.6251	.0469

The moderation effect for Organizational Commitment on the link between Workplace Ostracism and Cyberloafing is significant. The coefficient 0.6556 shows that among the independent variables, Organizational Commitment (OC) has a positive impact on the strength of the relationship between Workplace Ostracism (WO) and Cyber Loafing (CL). In other words, while more organizational commitment was positively related to cyber loafing behavior, the effect of each was stronger when employees experienced higher levels of workplace ostracism. This implies that the more an individual is committed to their organization, the likelihood of engaging in counterproductive work behaviors like cyber loafing when experiencing negative interaction with ostracism will be high.

The obtained R² value of 0.0151 suggests that the model that incorporates Workplace Ostracism and Organizational Commitment predict 1.51 % of the variance of Cyber loafing. Though this is a very small percentage of the total variability, the difference is, however, significant. Hypothesis 2: The interaction of job demands with job resources will be positively related to cyberloafing behavior. A F-value of 4.0064 has further enhanced the importance of the above model by indicating that the interaction term will mean something in the sense of trying to explain the cyber loafing behaviors. On top of this, the 7.6251 t-value is very high to conclude that the moderation effect is very meaningful.

Of most importance is the p-value 0.0469, which is below the accepted 0.05, suggesting that the moderation effect of Organizational Commitment on Workplace Ostracism and Cyber loafing is statistically significant. This

means that H5 is supported, and this confirms that organizational commitment does have the ability to strengthen the extent to which workplace ostracism influences cyber loafing.

Discussion

This research explored how workplace ostracism contributes to cyberloafing behaviors among IT employees in Pakistan, mediated by emotional exhaustion and moderated by work engagement. The findings demonstrate that social exclusion can lead to emotionally draining experiences that reduce employee focus and increase the likelihood of engaging in cyberloafing. However, work engagement acts as a buffer, minimizing the negative effects of ostracism. These insights hold significant implications for both researchers and practitioners aiming to improve workplace dynamics and employee productivity. In accordance with previous research, our findings signify the positive relationship between ostracized employees and cyberloafing as a coping mechanism. Theoretically this also aligns with Job Conservation of Resource (COR) and Demand Resource (JDR) theory identifying cyberloafing as a counter-productive behavior on one hand (Zhang et al., 2022) and coping strategy on the other hand (Hobfoll, 2001; Lim et al., 2021).

Secondly, this study found that emotional exhaustion partially mediates the link between workplace ostracism and cyberloafing, indicating that ostracism indirectly fuels non-work-related online behaviors. This finding is also aligned with the current empirical evidence of positive correlation between emotional exhaustion and cyberloafing (Lim et al., 2021; Li, et al., 2023). Also, consistent with previous literature (Koay & Lai, 2023) employees experiencing exclusion from colleagues were more likely to emotionally disengage and seek digital distractions. The findings aligns with empirical evidences Emotional exhaustion served as a psychological mechanism linking ostracism to cyberloafing, which supports stress-coping models (Karasek & Theorell, 1990).

Thirdly, it has been revealed that higher organizational commitment enhances the likelihood of cyberloafing among ostracized employees. Importantly, work engagement played a moderating role by weakening the ostracism-cyberloafing link. This implies that engaged employees are more resilient and less likely to engage in non-work-related smartphone use. The results underscore the importance of fostering inclusive and engaging work environments to mitigate productivity losses due to social exclusion.

Practical implications

Organizations should foster inclusive work environments to reduce social exclusion and implement engagement-enhancing strategies to build employee resilience. Policy recommendations include digital use guidelines, regular mental health check-ins, and workshops on digital discipline and communication. From theoretical perspective, literature shows cyberloafing behavior emerges from stress coping mechanism in the organizations and leads to emotional exhaustion and workplace ostracism. This highlights the importance of flexible work patterns for organizations, creative stress management strategies for managers, improved fairness perception and focused psychological wellbeing in workplace. Thus organizations should adopt regular stress management and mentorship programs (Ohue & Menta, 2024).

Secondly, as cyberloafing is considered as counterproductive, this shows the potential benefits of nurturing innovation and enhancing productivity. From a practical perspective, the organizations should use controlled cyberloafing to reduce stress and use it as a mean to train and develop its employees and avoid the disadvantages associated with cyberloafing.

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