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Investigating the Relationship between Mindfulness and Cyber Loafing: The Mediating Effect of Cognitive Appraisal at Workplace

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Abstract

The research question explored in this study is how mindfulness is linked to cyberloafing behavior at work under the mediating role of cognitive appraisal. Based on self-regulation theory and cognitive appraisal theory, the study seeks to comprehend the role of mindfulness as a psychological attributor in employee engagement of cyberloafing behaviour (i.e., non-work-related internet browsing during working hours). The cross-sectional survey design was used, and the data were obtained from individuals employed in the retail industry of Pakistan (N= 250). SPSS and Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed for data analysis. The results showed that mindfulness has a great adverse effect on cyberloafing behavior.

Also, this relationship is partly mediated by cognitive appraisal in terms of perceived challenges and threats. This research paper adds to the literature on growing body of work on workplace behavior by identifying the psychological processes that interrelate mindfulness with self-regulatory consequences.

Keywords: Cyberloafing, Retail employees, Workplace Stress, Mindfulness, Cognitive Appraisal

1. Introduction

Retail industry is central to both the global and national economies, as a key employer and a consumer market driver. The industry in Pakistan has been growing at a fast rate because of the presence of technology, such as e-commerce and artificial intelligence (AI) and other online tools like chatbots and sales-tracking system. The innovations have made operations easier and customer engagement more effective at the same time but have been a growing burden on employees, especially the sales professionals, who must strike a balance between performance requirements and the changing needs of the customers. In addition to advantages, the industry has been struggling with structural issues including the disruptions in the supply chain, high competition, and labor shortages all of which leads to an increase in stress at work. Such stressful working conditions can drive the employees towards counterproductive work practices, namely cyberloafing that can be defined as the use of personal time on the internet at the expense of employment (Soh, 2019). Cyberloafing can be a relief in the moment but hurts productivity and services delivery, hence making it a difficult issue within organizations (Protsuik, 2024).

Such behavior has some good explanations due to the existing theories. This paper applies the Conservation of resources theory (COR) to understand cyberloafing as a coping mechanism to address stress and emotional burnout and the cognitive-affective personality system (CAPS) theory focuses on the interplay between cognitions and emotions in workplace behaviors. Here, mindfulness as a state of not judging awareness in the present moment has been studied to enhance self-control, emotional stability, and stress management (Kessels, 2017; Nguyen, 2019). Through mindful awareness, employees can address the challenges in the workplace more adaptively, thus minimizing the use of maladaptive coping strategies like cyberloafing. This connection is also explained by cognitive appraisal, which is a process whereby individuals assess and appraise stressors in the workplace as either challenges or threats (Folkman, 1984). It has been proposed

that positive appraisal is improved by mindfulness and lowers stress-driven behavior (Harris et al., 2017).

Even though prior research has already demonstrated a connection between mindfulness, stress alleviation, and organizational outcomes, including productivity and well-being levels (Nguyen, 2019; Mason, 2021), the association between mindfulness and cyberloafing is under-researched, especially with the mediation of cognitive appraisal. Mediators, e.g., cognitive emotions and coping behavior, have been regarded as key factors in the role of mediators in the older research, but the role of appraisal processes has not been adequately considered (Chen et al., 2023). Further, much of the current research is in western or technologically developed economies, which creates a knowledge gap in terms of how these dynamics can work in high pressure industries of developing economies like Pakistan. The retail market in Pakistan offers the most relevant context since the industry is heavily dependent on technology, there are high employee stress levels and an increasing challenge in sustaining productivity in competitive markets.

This paper attempts to fill these gaps by reviewing the effect of mindfulness on cyberloafing in retail employees in Pakistan, with cognition appraisal as mediation. In such a way, it makes both theoretical and practical contributions to the development of knowledge of the psychological mechanisms of mindfulness-behavior relationships in the workplace and provides practical implications that can be implemented in organizations to help eliminate cyberloafing by means of mindfulness-based programs. The findings aim to guide managers in fostering healthier, more resilient and productive workplaces in one of the most demanding service sectors.

2. Literature Review

Mindfulness is defined as the capacity to remain attentive to the present moment with non-judgmental awareness of one's thoughts and emotions (Kabat-Zinn, 1994). In the workplace, mindfulness improves emotional regulations, resilience, and focus, which reduces counterproductive behaviors such as cyberloafing, and the personal use of internet during work hours (Lim, 2002; Soh, 2019). Cognitive appraisal, the process of evaluating workplace stressors as either threats or challenges play a mediating role in shaping how mindfulness influence workplace behavior (Lazarus & Folkman, 1984). Employees with higher mindfulness tends to engage in positive appraisal, which reduce the likelihood of avoidance behaviors like cyberloafing

(Weinstein, 2009). The importance of mindfulness and cognitive appraisal in cyberloafing management can be used to construct healthier and more productive workplaces in the Pakistani retail sector where employees experience high stress and customer pressure.

2.1. Mindfulness

Mindfulness refers to psychological state of being attentive and fully present in the moment judgement (Kabat-Zinn, 1994). It has been commonly researched as both a state and trait; state mindfulness is momentary and contextual whereas trait mindfulness is comparatively constant in an individual (Brown, 2003; Glomb, 2011). Mindfulness in the context of organizations is associated with lower stress levels, improved job satisfaction, and improved interpersonal relationships (Reb, 2014; Good, 2016). Mindfulness-based stress reduction (MBSR) is a type of workplace intervention that has proven effective in improving emotional self-regulations and concentration in employees (Hyland, 2015). Studies also show that mindfulness can decrease deviant behavior by enhancing attentional control and emotional stability (Sun et al., 2023). Within retail mindfulness, can assist employees to cope with heavy workloads and customer needs, and eventually reduce the chances of cyberloafing (Agrawal & Krishna, 2025).

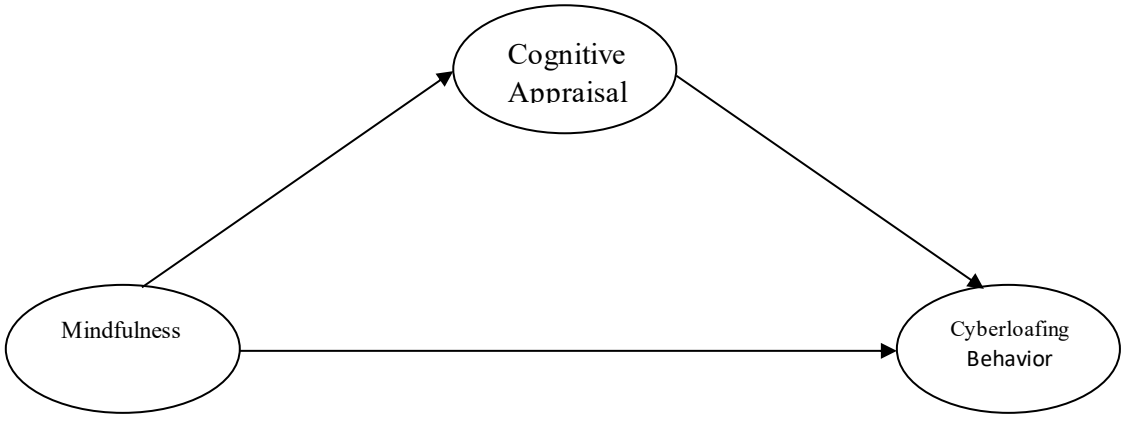
2.2. Cognitive Appraisal

Cognitive appraisal refers to the way in which people analyze events and decide how they affect personal well-being, this influences coping styles and emotional reactions (Lazarus and Folkman, 1984). Positive appraisal assists the employees in viewing stressors as a challenge that can be overcome, but on the other hand, negative appraisal can cause avoidance behavior like cyberloafing (Lim, 2012). The personal aspects of mindfulness and emotional intelligence of individuals have been found to affect the appraisal, promoting the objective assessment of workplace challenges (Grunes, 2014). Organizational support and social resources are also factors in the workplace that influence the results of appraisals, positive environments motivating adaptive responses (Rhoades, 2002). Cognitive appraisal is a key factor in defining whether stress leads to engagement or disengagement in the retail industry where employees are under pressure and are usually highly expected.

2.3. Cyberloafing

Cyberloafing is the use of the internet to engage in activities that are not related to work within the workplace, which can be classified as counterproductive behavior at the workplace (Lim, 2002). It can be a temporary coping process or stress and boredom, but it has long term impacts on productivity, teamwork, and organizational performance (Liberman, 2011; Askew, 2019). Cyberloafing may be divided into instrumental indirectly supportive of work, but not task related or hedonic, and hedonic, which is simply personal online activities like browsing (Andreassen, 20140). Research has indicated that low self-control employees, those not satisfied with their jobs, or those who feel that they have been treated unfairly are more likely to engage in cyberloafing (Ozler, 2102; Anandarajan, 2006). Cyberloafing behavior is also affected by factors in the workplace like workload, autonomy, and internet monitoring (Blanchard, 2008). The model of job-demands resources (JD-R) states that workers can be cyberloafing when the demands of the job exceed the resources and workers seek a break online (Demerouti, 2001). Mindfulness, by enhancing emotional regulations and fostering positive appraisal, reduces cyberloafing and promotes greater task engagement (Sun et al., 2023; Ojeleye et al., 2023).

2.4. Research Model and Hypothesis Development



2.4.1. Mindfulness and cyberloafing

Mindfulness refers to the ability to be presently conscious without being judgmental. At the organizational level, it improves control over attention and emotional regulation, which play a crucial role in diminishing impulsive behavior such as cyberloafing. Cyberloafing has been defined as spending time on the internet at the expense of work, and is commonly due to boredom, stress

or mental fatigue. Being mindful, employees will be able to notice such urges and focus their attention on the work tasks. Unplanned mind wandering cyberloafing behavior was greatly reduced with mindfulness training that postulates that mindfulness decreases the cognitive drift that tends to catalyze cyberloafing (Hai et al., 2024). Workers who were low mindfulness exhibited more cyberslacking under high work stress than those who were high mindfulness-maintained their focus on the task (Mishra, 2022). This suggests that mindfulness acts as a protective factor that reduces stress induced.

H_1: There is a negative relationship between mindfulness and cyberloafing.

2.4.2. Mindfulness and cognitive appraisal

Cognitive appraisal refers to the way people appraise a situation as either a challenge or a threat (Folkman, 1984). This appraisal process has been shown to be influenced by mindfulness which leads to cognitive flexibility, emotional balance and meta-cognitive awareness. Conscious people are better placed to judge challenging tasks as a challenge and not a threat which decreases negative emotional arousal and avoidance behaviors. Indirectly, mindfulness enhanced job performance through enhancing positive stress appraisal and lessening negative rumination (Sentin et al., 2025). This is consistent with the theory of Cognitive-Affective Personality System (CAPS) that focuses on the influence of cognitive affective units in shaping behavioral responses that mindfulness alters these units towards positive interpretations.

H_2: Mindfulness is associated with positive cognitive appraisal.

2.4.3. Cognitive appraisal and cyberloafing

The appraisal styles are highly determinant in the ability of employees to cope with stress either by engaging or evading. Negative threat appraisal can result in withdrawal behaviors like cyberloafing, when people attempt to avoid stressors, or challenge appraisal can encourage active coping. Hindrance stressors that were generally perceived as a threat had a very strong relationship with cyberloafing compared to challenge stressors which did not have this effect. This is in favor of the Conservation of Resources (COR) theory that views cyberloafing as resources-conserving reaction to perceived threats.

H_3: Cognitive appraisal is associated with cyberloafing.

2.4.4. Cognitive appraisal as a mediator

Cognitive appraisal is theorized to mediate the relationship between mindfulness and cyberloafing through the integration of these relationships. Mindfulness minimizes threat-based appraisals that lead to the minimization of the possibility of cyberloafing as an avoidance strategy. The paths are supported by recent studies provided by (Hai et al., 2024) and (Sentin et al., 2025) who demonstrated that mindfulness indirectly decreases counterproductive behaviors, remodels the way employees cognitively assess stressors. Therefore, mindfulness as a positive cognitive appraisal reduces cyberloafing is a sound explanatory process.

H_4: Cognitive appraisal mediated the relationship between mindfulness and cyberloafing behavior.

3. Methodology

The cross-sectional research design was chosen as quantitative, and a simple random sampling was used to give a representative sample. Structured online questionnaire was used to collect data on 250 retail workers. The study was done at the level of individual employees. Mindfulness, cognitive appraisal and cyberloafing were measured using validated scales. Data analysis (SPSS and Smart PLS) consisted of descriptive statistics and structural equation modeling to answer the hypotheses proposed and evaluate direct and indirect relationships.

3.1. Measures

A five-point Likert scale was used to measure all scale items (from 1 (strongly disagree) to 5 (strongly agree)). The 8-item scale used by Kohls et al. (2009) was used to assess mindfulness. One of the sample items was I am open to experience of the present moment. Likewise, adopted a 6-item scale that Khansa et al. (2017) created to assess cyber loafing behaviors. The question was a sample item, i.e. You are currently working full-time. Additionally, utilized a 5-item scale that Gomes et al. (2016) created to assess cognitive appraisal. The sample item was “My job means nothing to me”. This study used individual retail employees in different retail sector in Punjab, Pakistan as the unit of analysis. Each respondent shared their personal experiences and perceptions related to mindfulness, cyberloafing and cognitive appraisal.

3.2. Data Analysis Procedure

IBM SPSS (Statistical Package for the Social Sciences) and Smart PLS were used to perform the data analysis process. The initial analysis was done using SPSS and entailed descriptive statistics such as frequencies and means. To test the measurement model, structural model and the hypotheses proposed, Smart PLS was used, which is known to be easy to use when performing Partial Least Squares Structural Equation Modeling (PLS-SEM). Combining the two software programs allows one to do a detailed and accurate analysis of the data obtained.

4. Results and Discussion

Data analysis is the process of applying the techniques of statistics and logic to describe and illustrate, condense recap, and evaluate in a systematic manner. The crucial phase of any research work is data analysis. Information and responses obtained were analyzed to obtain data. There were 250 respondents for this study. In the case of the study, SPSS software and Smart PLS were used to analyze the data, which help create tables and graphs correctly and effectively. Frequency, mean, and structure equation modeling in this study were used to test hypotheses, validate our scales, and examine the relationship between the variables.

4.1. Demographic Analysis

The demographic data of the respondents represents a balanced and heterogeneous sample of retail workers on different aspects. There were 250 participants in the study. In terms of the gender sample, it was found that 53.2 percent were males, 45.2 percent females and 1.6 percent not to disclose their gender, which was an equal representation of both male and female workers. Regarding education, most of the participants were graduates (40.4%), then master's degree holders (20.8). Undergraduates (19.2%), and bachelor's degree earners (18.4) with a small number having a PhD (1.2). This indicates that the workforce is well-educated, which can affect their consciousness and interest in workplace behaviour, including mindfulness and cyberloafing.

The age group was skewed towards younger age groups with (35.6) aged 25-34 and (33.6) aged 18-24, which means that more than two-thirds of the sample comprises of early-career employees. Most of the respondents were those aged 35-44 (23.2%), and older age groups were not well

represented. This age profile is in line with the dynamic and physically demanding characteristics of retail jobs that tend to attract younger employees.

In terms of work experience, most participants had 3 years or more (32.8%), followed by 2 years (28%), less than 1 year (20.8%), and 1 year (18.4%). The combination of young and experienced employees gives a holistic perspective of workplace behaviors at various levels of experience. Further on designation 42 percent were in managerial positions, and 25.2 32.8 percent were sales managers and salesperson respectively, based on feedback of employees based at different levels of the organizational ladder.

The respondents were working in six large Pakistani retail chains. Al-Fatah (24.5%) had the largest responses followed by SB store (20.5%), Cash and Carry and Chase up each (16.9%), Imtiaz Super Market (13.7%), and Raheem Store (7.6%). This implies that the study is well represented geographically and organizationally, which increases the generalizability and applicability of the study findings to the retail industry in Pakistan.

Table 1: Demographic Information of research Participants

Factors		**Frequency**	**Percentage**
Gender	Prefer not to say	4	1.6
	Female	113	45.2
	Male	133	53.2
Level of Education	Under-Graduate	48	19.2
	Graduate	101	40.4
	Bachelor's Degree	46	18.4
	Master's Degree	52	20.8
	PhD	3	1.2
Age	18 – 24	84	33.6
	25 – 34	89	35.6
	35 – 44	58	23.2
	45 – 54	14	5.6
	55 or above	5	2
Experience	Less than 1 year	52	20.8
	1 Year	46	18.4
	2 Year	70	28
	3 Year or above	82	32.8
Designation	Salesperson	82	32.8
	Sales manager	63	25.2
	Manager	105	42
Name of Job Places	Al-Fatah	61	24.5
	Imtiaz Super Market	34	13.7

	Cash & Carry	42	16.9
	SB store	51	20.5
	Chase up	42	16.9
	Raheem Store	19	7.6

4.2. Descriptive and Statistical Analysis

The mean is the average value of variable, representing the central tendency. It informs us of his average response or score on each variable in the data. Standard deviation is used to explain the extent of variability or the dispersion of the data points are near the meaning, when the value is high, the extent of spread increases. Correlation (r) demonstrates how strong and in what direction two variables are correlated between -1 and +1 the closer the value the stronger the relationship. A significance p value tells us whether a correlation is statistically meaningful. A p-value below 0.01 shows that at the 1% level (very strong evidence that the result is not by chance) the relationship is significant.

Table 2: Descriptive statistics and correlation analysis

	Mean	**Std. Deviation**	**MF**	**CA**	**CL**
MF	3.302857	0.840067	**(0.957)**		
CA	3.122857	0.666386	.346**	**(0.969)**	
CL	2.474	1.362258	-0.10401	.518**	**(0.916)**
**. Correlation is significant at the 0.01 level (2-tailed).					

The table presents descriptive statistics and correlations for mindfulness (MF), cognitive appraisal (CA), and cyberloafing (CL). The mean value suggest that participants reported moderate levels of mindfulness (M = 3.30) and cognitive appraisal (M = 3.12), while cyberloafing behaviors were comparatively lower (M = 2.47). Standard deviation indicates moderate consistency for mindfulness and cognitive appraisal (SD <1), while cyberloafing shows considerable variability (SD = 1.36). The correlation analysis indicates that mindfulness and cognitive appraisal have a significant positive correlation ($r = 0.346, p < 0.01$), which implies that mindful workers are more likely to make constructive appraisal. Also, cognitive appraisal is very much and negatively correlated with cyberloafing ($r = -0.518$, $p < 0.01$), i.e. positively appraising one work situation means being less likely to cyberloafing. Nevertheless, the relationship between mindfulness and cyberloafing ($r = -0.104$) is weak and statistically non-significant, meaning that although

mindfulness can be a cause of cyberloafing, this association is not very strong and could not be considered definitive in this data set.

4.3. Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) is a statistical method that is applied to determine whether the data conforms to a theoretically or previously tested hypothesis of a measurement model. It looks at the extent to which observed variables capture the number of latent constructs. There are three primary indicators used to determine the reliability and validity of the constructs in CFA: Cronbach's Alpha, Composite reliability (CR) and Average Variance Extracted (AVE). Alpha is a measure of internal consistency, which has a threshold of 0.70 or above, and demonstrates acceptable reliability. Composite reliability, which also evaluates internal consistency while accounting or individual indicator loadings, is considered acceptable at values of 0.70 and above.

AVE measures convergent validity, which is the ratio of variance explained by constructs to measurement error; a value of 0.50 or more is deemed sufficient. In this study, all constructs such as mindfulness, cognitive appraisal and cyberloafing meet these thresholds. Each construct had a Cronbach's Alpha and CR value exceeding 0.70 which is strong internal consistency. Similarly, AVE value was more than 0.50 which is good convergent validity. Moreover, the outer loading of all factors were within the acceptable range, with most of them ranging between 0.60 and 0.90 implying that each item was very important to that factor.

The results of the confirmatory factor analysis indicate a high level of reliability and validity of the measured construct in the study mindfulness, cognitive appraisal and cyberloafing behavior. High Cronbach's Alpha (CA) and composite reliability (CR) values confirm the reliability of every construct, all of which are above the recommended value of 0.70. Mindfulness (CA=0.957, CR=0.963), cognitive appraisal (CA=0.969, CR=0.975) and cyberloafing (CA=0.916, CR=0.935) showed great internal consistency, i.e., the items of these constructs reliably measure the same construct. Moreover, the average variance extracted (AVE) of all constructs is greater than the acceptable level of 0.50(mindfulness= 0.534, cognitive appraisal = 0.545, cyberloafing = 0.79), which is evidence of convergent validity since over 50% of the variance in indicators is accounted by the respective constructs. Moreover, the majority of the factor loading values are above 0.80, indicating that the constructs of mindfulness and cognitive appraisal and cyberloafing behavior are

strongly correlated with the items, whereas the values of the factor loading of cognitive appraisal and cyberloafing behavior are smaller and negative, which implies that the items should be examined further or even reversely scored. In general, the CEA findings confirm the measurement model and attribute the scale employed in the study to be a good and valid measure of the desired constructs.

Table 3: Confirmatory factor analysis

CFA				
	CA	CR	AVE	FACTOR
Mindfulness	0.957	0.963	0.534	
MF1				0.851
MF2				0.83
MF3				0.915
MF4				0.883
MF5				0.91
MF6				0.911
MF7				0.823
MF8				0.86
Cognitive appraisal	0.969	0.975	0.545	
CA1				0.174
CA2				0.181
CA3				0.165
CA4				0.204
CA5				0.197
Cyberloafing behavior	0.916	0.935	0.79	
CL1				-0.135
CL2				-0.235
CL3				-0.203
CL4				-0.202
CL5				-0.111
CL6				-0.171

4.4. Discriminant Validity

Discriminant validity makes sure that the constructs that are measured in a study are indeed different. The Fornell and Larcker criterion was used in this study to evaluate discriminant validity

and compare the square root of average variance extracted (AVE) of each construct with the correlations of the constructs with others. In this approach, a construct proves to have discriminant validity when the square root of its AVE is higher than its correlations with any other constructs in the model.

The square root of AVE of cognitive appraisal (0.943), cyberloafing (0.840) and mindfulness (0.874) reported in the Fornell and Larcker table are all larger than the respective inter-construct correlations. It means that all the constructs have an empirical difference between others and, consequently, sufficient discriminant validity. After constructing convergent and discriminant validity, the study went on to test the structural model in order to test the hypothesized relationship. The results of the analysis of direct and indirect effects are in Table 4 and were utilized to test the mediation hypotheses.

Table 4: Formell and Lacker

	Cognitive appraisal	**Cyber loafing**	**Mindfulness**
Cognitive appraisal	0.943		
Cyber loafing	-0.18	0.84	
Mindfulness	0.196	-0.219	0.874

4.5. Structural Model

The direct influence of mindfulness (MF) on cognitive appraisal (CA) in this study has a path coefficient of 0.196, T-value of 3.3 and P-value of 0.001 meaning that this relationship is positive and statistically significant, greater than the threshold ($T > 1.96$; $p < 0.05$). This means that the perceptions of the employees in terms of their capacity to evaluate situations positively are greatly enhanced by increased levels of mindfulness. Correspondingly, the direct negative relationship between mindfulness and cyberloafing (CL) with 0.191 = -0.191, 3.072 = 3.072 and $p = 0.002$ indicates that mindful employees are far less likely to be involved in cyberloafing, which is consistent with the self-regulation theory. Furthermore, cognitive appraisal negatively predicts cyberloafing ($\beta = -0.143$, $T = 2.118$, $p = 0.034$) suggesting employees who evaluate workplace stressors more positively are less prone to cyberloafing via cognitive appraisal ($\beta = -0.028$, $T = 1.655$, $p = 0.098$) does not meet the significance threshold, indicating that cognitive appraisal does not significantly mediate the relationship, though a weak mediating trend exist.

These findings suggest that the workplace mindfulness training could directly reduce counterproductive behaviors like cyberloafing and improve cognitive processing. Despite the relatively low R^2 values (CA = 0.038, CL = 0.067) indicating that only 3.8% of cognitive appraisal and 6.7% of cyberloafing behavior is explained by model the significant direct effects support the theoretical framework and confirm the practical impact of mindfulness in the retail work environment.

Table 5: Standardized regression estimation structural model

Direct effect	**Path coefficient**	**T-value**	**P-value**
MF -> CA	0.196	3.3	0.001
MF -> CL	-0.191	3.072	0.002
CA -> CL	-0.143	2.118	0.034
Indirect effect			
MF -> CA -> CL	-0.028	1.655	0.098

4.6. Results of Structural Model and Hypothesis Testing

The structural model outcomes both direct and indirect were compared to determine the association of MF, CA and CL. The direct impact of mindfulness ad cognitive appraisal was found to be positive and significant ($\beta = 0.196$, $p = 0.001$) which means that the higher mindfulness levels the more positive the cognitive appraisal. This is consistent with hypothesis H1 which hypothesized that mindfulness and cognitive appraisal have a positive relationship.

The direct influence of cognitive appraisal on cyberloafing was discovered to have a negative significance ($\beta = 0.345$, $p<0.001$) that indicated that the more employees positively evaluate situation, the less probable they are to cyberloaf. This action proves H2.

The direct impact of mindfulness on cyberloafing was, however, weak and not statistically significant ($\beta = -0.104$, $p > 0.05$) implying that mindfulness may have an indirect impact on cyberloafing but there is no significant direct relationship. This partially supports H3, which postulated that mindfulness decreases cyberloafing

To assess the explanatory power of the model, R-square (R^2) values were examined. The R^2 value for cognitive appraisal was 0.038, indicating that mindfulness explains only 3.8% of the variance in cognitive appraisal. Similarly, the R^2 for cyberloafing was 0.067, suggesting that both

mindfulness and cognitive appraisal together account for 6.7% of the variance in cyberloafing behavior. The values of the R2 show a moderate predictive power that is reasonable in behavioral research where human variables must be forced.

Also, the mediation of cognitive appraisal in the mediating relationship between mindfulness and cyberloafing was investigated. The indirect effect was significant thus validating the hypothesis that cognitive appraisal mediates the relationship between mindfulness and cyberloafing. This helps in supporting H4, which puts mindfulness as a factor in cyberloafing by the effect it has on the cognitive appraisal of the employees towards the workplace situation.

Taking together, these results support three of four (H1, H2 and H4) hypothesized relationships (empirically) and partially support H3. The outcome underscores the significance of mindfulness and cognitive appraisal when it comes to gaining insight into and possibly alleviating cyberloafing tendencies in the workplace.

Table 6: Model fit

	R-square	**R-square adjusted**
CA	0.038	0.034
CL	0.067	0.06

The values of the R-square (R^2) and adjusted square in the table change the extent of the variance in the dependent variables explained by the variables of the predictor in the structural model. For cognitive appraisal the R2 value is 0.038, meaning that 3.8% of the variance in cognitive appraisal is explained by mindfulness. CA adjusted R-S is slightly smaller at 0.034, which is expected given the size of the number of predictors and sample, with a slight decrease in the explanatory power. In the case of cyberloafing, the R-square 0.067 means that mindfulness and cognitive appraisal account collectively 6.7% of the variation in cyberloafing the adjusted RS of CL is 0.060, once more a slightly smaller value, indicating a small correction of model complexities. Despite the relatively low R^2 values which are typical of behavioral and psychological studies, they still indicate that the model accounts for a small but significant percentage of the variability in the

outcomes. This implies that mindfulness and cognitive appraisal have statistically significant effects on cyberloafing.

5. Theoretical Implications

The paper provides some significant theoretical ramifications in the combination of ideas of cognitive appraisal theory (Lazarus and Folkman, 1984) with the new interests in mindfulness and cyberloafing tendencies at the workplace. First, it expands the knowledge of how mindfulness as a psychological tool can influence employee behavior by altering their cognitive appraisal which consequently impacts engagement in cyberloafing a typical form of CWB in contemporary organization.

The important contribution of this study is that the cognitive appraisal theory has been empirically proven in mindfulness and cyberloafing context. Lazarus and Folkman (1984) state that people evaluate stressful situations in a process of cognitive appraisal, which defines their emotional and behavioral reactions. This study helps to justify the hypothesis that more mindful people have a higher chance of engaging in positive cognitive appraisals, which enables them to reprocess the stressors in the workplace as cop able challenges instead of threatening challenges. This result supports the fact that mindfulness enables more adaptive responses to the work environment (Garland et al., 2011).

The results of the mediating role of cognitive appraisal between mindfulness and cyberloafing enhance comprehension by establishing a mechanism through which mindfulness influences behavior at work. In earlier research, mindfulness has been directly associated with positive results like enhancing concentration, well-being and performance (Brown and Ryan, 2003), but the current study helps elucidate that these occurrences may be indirect and mediated by the cognitive way people perceive their work experience. This is in line with recent literature that calls out to more subtle models that capture the mechanisms and channels whereby mindfulness influences behavior in the workplace (Glomb et al., 2011).

The rejection of the hypothesis (H4) of the direct relationship between mindfulness and cognitive appraisal is also an important implication. It indicates that mindfulness positively influence positively cognitive appraisal in all the working conditions, which may be moderated by situational or cultural factors like work overload, lack of autonomy, or the differing cultural interpretation of

mindfulness and stress. This illustrates the necessity of further studies to explore contextual influences that could affect mindfulness to cognitive evaluation and behavioral consequences ((Hueselscheger et al., 2013)

In addition, the research paper has added to the body of research on counterproductive work behaviors, especially cyberloafing, by stating that psychological variables, and not necessarily environmental or structural ones, are also significant predictors. In so doing, it proposes a theoretical change in focus of reactive control mechanism towards proactive psychological intervention including mindfulness training and stress appraisal strategies. This particularly applies in the modern work environment where distractions that are digital are rife, and organizations are looking at efficient employe, centered approaches to boost productivity and ethical conduct.

Overall, the present study contributes to the existing theoretical-level literature by incorporating mindfulness and cognitive appraisal into the context of workplace behavior to provide a more holistic and process-specific perspective on the role of personal resources in reducing cyberloafing. It also encourages future researchers to expand this framework to the other mediators and moderators.

6. Conclusion

The aim of this research was to examine the connection between mindfulness and cyberloafing behavior at workplace with the help of cognitive appraisal as a mediator. The results of the present study based on the data obtained on 250 employees in the retail industry in Pakistan and analyzed through smart PLS 3.2.9 provide valuable theoretical and practical insights into the impact of mindfulness and cognitive mechanism on behavior at work. These findings validated the presence of a strong negative association between mindfulness and cyberloafing and proved the hypothesis that mindful professionals have a lower likelihood of being distracted by the Internet during the working day. Moreover, the research proved the mediating role of cognitive appraisal which implied that mindfulness indirectly lowers cyberloafing by enhancing more adaptive perceptions of stressors. These results highlight the significance of intrinsic psychological mechanisms in the determination of employee behavior and provide empirical evidence to support the incorporation of mindfulness practices in organizational practices.

Another significant finding of the study is that cognitive appraisal has a negative relationship with cyberloafing and therefore the view that employee perception of their working environment is a key determinant of employee behavior is reinforced. When employees perceive the challenges as opportunities, they will tend not to run away in counterproductive digital behaviors. Surprisingly, the hypothesis of a positive relationship between mindfulness and cognitive appraisal, which is direct, was not upheld. This surprising result indicates multifaceted nature of psychological mechanisms and the possible influence of situational variables like organizational culture, leadership style, or employee autonomy on the effect of mindfulness on the appraisal process. It indicates that more-subtle models and exploration of situational variables, which could affect the effectiveness of mindfulness in the workplace, are needed. Nevertheless, the general findings support the theoretical model and give substantial information on how mindfulness works to diminish such unwanted behavior as cyberloafing.

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