Jagannath University Journal of Life and Earth Sciences, 10(1) 24-39 pISSN 2414-1402, eISSN 2791-1845

DOI: https://doi.org/10.3329/jnujles.v10i1.85003

JnUJLES

Research Article

HOW ORGANIZATIONAL JUSTICE INFLUENCES CYBERLOAFING: A MEDIATING EFFECT OF WORK ENGAGEMENT

Fatema-Tu-Zohra Binte Zaman[1*], Jannatul Ferdous Proma[1], Md. Juwel Sheikh[2], Umma Kulsum Tonney[1], Farah Binte Asad Sreya[1], Ripty Ray Jaba[1], Md Shakil Ahmed[1]

[1] *Department of Psychology, Jagannath University, Dhaka-1100, Bangladesh*

[2] *Adjunct Faculty, Department of Psychology, Gopalganj Science and Technology University, Gopalgonj-8100, Bangladesh*

Received:11 August 2024, Accepted: 25 June 2025

ABSTRACT

Technological advancements have facilitated increased access to the internet, leading to widespread cyberloafing. As cyberloafing becomes more prevalent, organizations are concerned about its potential to disrupt productivity and compromise security. In the context of employees from private and government banks in Dhaka city, this research aims to delve into how perceptions of organizational fairness impact cyberloafing, with an emphasis on the mediating effect of work engagement. A cross-sectional survey was conducted with 400 participants using adapted and validated Bangla versions of scales measuring organizational justice, cyberloafing behaviors, and work engagement. The hypotheses were tested through multiple statistical analyses, including regression and mediation models. The findings revealed a significant negative relationship between organizational justice and cyberloafing, indicating that higher perceptions of fairness are associated with reduced cyberloafing behavior. Organizational justice was also found to positively influence work engagement. Furthermore, work engagement partially mediated the relationship between organizational justice and cyberloafing. The study also found significant associations between demographic variables (such as age, education, salary, experience, and social media use) and cyberloafing behavior. The findings highlight the importance of fostering fairness and engagement in the workplace to reduce cyberloafing and support greater employee productivity and job-related satisfaction.

Keywords: *bank employee, cyberloafing, demographic variables, organizational justice,*

[*] **Correspondence:** zamanfatema@hotmail.com

productivity, work engagement

Introduction

Throughout the 21st century, technological advancements have transformed the way businesses operate (Tapia and Tapia, 2006). The internet, in particular, has emerged as a crucial tool in the daily routines of employees (Canaan *et al.*,2011). However, instead of focusing on work tasks, employees may divert their attention to unrelated internet activities during work hours (Yeik, 2017). This phenomenon, known as cyberloafing, enables employees to remain present physically but disengaged from work tasks (Wagner *et al.*, 2012). Lim *et al.* (2002) found that 23% of employees admitted to daily personal internet use, with an additional 26% admitting to browsing the internet several times a week.Cyberloafing poses various risks to organizations, including threats to network security and potential legal issues such as security breaches, fraud, and defamation (Vitak *et al.*,2011). Surveys indicate that organizations suffer substantial monetary losses, estimated at around $4500 per employee, due to cyberloafing (Koay *et al.*,2017). Consequently, cyberloafing is considered a hidden epidemic that undermines business productivity (Koay *et al.*, 2017). However, it is essential to explore the motivations behind why certain employees engage in cyberloafing.

Employees engaging in internet activities that aren't work-related is known as cyberloafing, which is a significant concern for organizations due to the widespread access to the internet through various electronic devices like smartphones and portable devices (Andel *et al.*, 2019). Research by Zoonen *et al.* (2014) found that 84.1% ofthe workforce accessed Facebook and Twitter daily. Andel *et al.* (2019) reported that staff spend around 2 hours per day on non-work-related online activities. Different perspectives exist regarding the consequences of cyberloafing (Wu *et al.*, 2020). Some studies suggest positive outcomes such as improved job performance (Moqbal *et al.*, 2013), enhanced work-life balance (Malik *et al.*, 2010), increased job satisfaction (Koch *et al.*, 2012), and higher organizational commitment (Ali-Hassan *et al.*, 2011) from using the internet and social media at work. Conversely, cyberloafing has been linked to various negative organizational consequences (Wu *et al.*, 2020), costing organizations an estimated $85 billion annually (Andel *et al.*, 2019). For instance, research indicates that cyberloafing can lead to psychological stress (Sonnentag *et al.*, 2018) and negative emotions (Sonnentag *et al.*, 2017). Kim and Byrne (2011) suggest that employees' inclination toward cyberloafing is influenced by internal factors such as self-control and procrastination, as well as perceptions of unfair treatment by the organization, highlighting motivational issues.

Employees' perception of the treatment they receive at work, whether fair or unfair, is central to the concept of organizational justice (Hameed *et al.*, 2019; Chang and Smithikrai, 2010). Organizational justice refers to how employees react to the perceived fairness or unfairness in treatment from their organization (Jamaluddin *et al.*, 2015). Research suggests that organizational injustice can lead to increased cyberloafing, as workforces may engage in suchbehavior as a response (Rajah and Lim, 2011). Previous studies have indicated that cyberloafing may stem from feelings of procedural, distributive, and interactional injustice (Lim, 2002).Recent evidence from a South African sample shows that organizational justice positively affects work engagement, which in turn reduces cyberloafing, with trust acting as an additional mediator (Oosthuizen *et al.*, 2018).

Additionally, cyberloafing has been demonstrated to diminish both organizational productivity

and work engagement (O'Neill *et al.,* 2014). Work engagement holds significant interest for both organizations and academic researchers due to its pivotal role in individual and organizational outcomes (Agarwal, 2014). Schaufeli *et al.* (2002) defined work engagement as "a positive, fulfilling work-related motivational state of mind characterized by vigour, dedication, and absorption". Work engagement is characterized by high levels of involvement, energy, perseverance, and enthusiasm in work-related tasks and responsibilities (Bakker and Demerouti, 2008; Schaufeli *et al.,* 2002). A recent study by Khari and Sinha (2024) found that employees with more job autonomy showed higher levels of work engagement, which was associated with lower levels of cyberloafing. This finding highlights the mediating role of work engagement in the workplace. According to Den Hartog and Belschak (2012), employees exhibiting higher levels of work engagement tend to demonstrate greater organizational dedication and personal initiative, thereby reducing the likelihood of engaging in counterproductive work behavior. While prior research indicates a negative association between work engagement and certain cyberloafing activities such as emailing (Elhanafy, 2018), Van Doorn (2011) contradicted these findings, suggesting no significant relationship between cyberloafing and work engagement,which may have been due to the type of cyberloafing activities that were evaluated.

Considering the various consequences of internet use at work, studies have been carried out to identify the factors that influence cyberloafing behaviors. However, while previous research has identified organizational justice as a potential driver of cyberloafing, the mechanisms underlying this relationship remain unclear. By integrating the concept of work engagement as a mediator, this study seeks to elucidate the intricate interplay between organizational justice, work engagement, and cyberloafing.By exploring these relationships, the study aims to contribute to both theoretical understanding and practical interventions for organizations seeking to mitigate the adverse effects of cyberloafing on productivity and employee well-being.

Rationale of the Study

Cyberloafing has become a significant organizational concern, with growing interest in understanding its psychological and contextual antecedents (Lim, 2002; Wu *et al.,* 2020). While prior research has explored the link between workplace justice and employee behavior, the role of organizational justice in predicting cyberloafing remains underexamined, particularly in non-Western contexts (Oosthuizen *et al.,* 2018). Organizational justice influences how fairly employees feel they are treated, which in turn may reduce counterproductive behaviors like cyberloafing (Colquitt *et al.,* 2001; Rajah and Lim, 2011). Furthermore, work engagement characterized by vigor, dedication, and absorptionmay act as a protective factor against such behaviors (Bakker and Demerouti, 2008). This study integrates these constructs to explore whether work engagement mediates the relationship between organizational justice and cyberloafing. Additionally, given that cyberloafing may vary by age, experience, or online behavior (Andel *et al.,* 2019; Chen *et al.,* 2020), demographic variables are also considered. By examining these relationships together, the study aims to deepen understanding of how organizational justice and work engagement interact to influence cyberloafing within the banking sector of Bangladesh.

Research Questions.This study addressed the following research questions:

***RQ₁*:** Does organizational justice negatively influence cyberloafing behavior?

***RQ₂*:** Does organizational justice positively influence work engagement?

***RQ₃*:** What is the mediating role of work engagement in the relationship between organizational justice and cyberloafing behavior?

***RQ₄*:** Are there significant associations between demographic variables (age, educational qualification, working hours, salary, experience, social network usage) and cyberloafing behavior?

Research Hypotheses. Following research suggestions were addressed:

***H₁*:**Organizational justice negatively impacts cyberloafing behavior.

***H₂*:**Organizational justice positively influences work engagement.

H₃: Work engagement mediates the connection between organizational justice and cyberloafing behavior.

***H₄*:** There are significant associations between demographic variables (age, educational qualification, working hours, salary, experience, social network timing) and cyberloafing behavior.

Materials and Methods

Participants

The target population of this study consisted of bank employees, ranging from principal officers to cash officers, working in both private and government banks within Dhaka City. From this population, a total of 400 participants between the ages of 25 and 55 were selected using a purposive sampling technique. Participants were drawn from a diverse set of private and government banks to ensure a representative view of the banking sector in Dhaka.

Table 1.Information about the respondents' demographic profile.

Categorical Variable Information		*N*	*Percent (%)*	*Mean*	*SD*	*Total (Percent)*
Gender	Male	318	79.5	72.73	14.54	400 (100%)
	Female	82	20.5	72.34	15.95	
Type of Job	Permanent	318	79.5	72.19	15.18	400 (100%)
	Temporary	82	20.5	74.44	13.26	
Socio-Economic Status	Upper Class	33	6.3	72.88	10.03	400 (100%)
	Middle Class	342	85.5	72.03	14.238	
	Lower Class	25	8.3	80.88	23.68	
Position	Principal officer	221	55.3	71.63	15.67	400 (100%)
	Senior Principal Officer	76	19.0	76.64	15.27	

	General associate officer	33	8.3	67.82	10.41	
	Junior officer	30	7.5	75.73	9.09	
	Deputy director	20	5.0	74.05	14.88	
	Operating manager	9	2.3	68.44	3.71	
	Management trainee officer	6	1.5	79.97	6.85	
	Cash officer	5	1.3	64.40	24.62	
Own Phone/Laptop	Yes	400	100.0	72.65	14.82	400 (100%)
	No	0	0.0	-	-	
Internet	Yes	390	97.5	72.74	14.89	400 (100%)
	No	10	2.5	69.00	11.87	
Internet usage skills	High	207	51.7	73.72	14.12	400 (100%)
	Moderate	193	48.3	71.50	15.49	
Occupation	Government Banker	283	70.8	72.58	15.59	400 (100%)
	Private Banker	117	29.3	72.83	12.81	
Marital Status	Married	334	83.5	72.59	14.28	400 (100%)
	Unmarried	66	16.5	72.95	17.41	
Educational Qualification	MBA	126	31.5	70.64	13.31	400 (100%)
	MSc	129	32.3	74.63	14.78	
	MA	84	21.0	75.08	17.57	
	MSS	49	12.3	70.29	13.42	
	Honors	12	3.0	65.08	8.35	

Design of the Study

This research employed a cross-sectional survey design, a non-experimental approach, as it involves collecting data from a sample of respondents at a single point in time.

Measures

Personal Information Form

The researcher created a personal information form to collect detailed data from respondents. This form requested information on respondents' gender, socio-economic status, educational background, type of institution, income level, working hours, and job position. Additionally, it gathered details about their internet usage and personal computer or laptop use.

Cyberloafing Scale

To measure the respondents' cyberloafing behavior during working hours Bangla adapted version (Zaman and Tonney, 2023) of the Cyber Loafing Scale was employed (Akbulut, 2016).This tool contains 30 items with five sub-scales: i.e., sharing measures participant's sharing activities in social media (9 items:1, 2, 3, 4, 5, 6, 7, 8, 9); shopping measures participant's shopping activities (7 items:10, 11, 12, 13, 14, 15, 16); real-time updating measures participant's activities on Twitter (5 items: 17, 18, 19, 20, 21); accessing online contentmeasures participant's online content accessing (5 items: 22, 23, 24, 25, 26); gaming or gambling the fifth subscale measures participant's activities regarding gamingorglambing (4 items: 27, 28, 29, 30). Contributors rate individual items using a 7-point scale anchored from "1" (*never*) to "7" (*every time*). A high score indicates a high level of cyberloafing.

Organizational Justice Scale

Bangla Adapted (Zaman and Asad, 2023) version ofthe "Organizational Justice Scale"was used for assessing workers' perceptions of what is fair and unfair in their workplaces, originallydeveloped by Ambrose and Schminke in 2009.This tool contains 20 items with 4 subscales, i.e., procedural justice consists of 7 items *(1, 2, 3, 4, 5, 6, 7)*, distributive justice4 items (*8, 9, 10, 11)*, interpersonal justice consists of4 items (12, 13, 14, 15), and informational justice consists of 5 items (16, 17, 18, 19, 20). Participants rate each item using a 5-point scale anchored from '1' (*never*) to '5'(*always*).High scores indicate a high level of perceived organizational justice.

Work Engagement Scale

The Work Engagement Scale used in this study is the Bangla-adapted version of the Utrecht Work Engagement Scale (UWES-17), originally developed by Schaufeli*et al.* (2002) and later adapted by Zaman and Sreya (2023) for use in the Bangladeshi context.

Evaluate levels of energy and mental resilience during work, as well as feelings of significance, inspiration, pride, challenge, and focus.The three underlying aspects of vigor, devotion, and absorption are covered by the seventeen items that make up the UWES-17. Items 1, 4, 8, 12, 15, 17 are used to measure vigor; items 2, 5, 7, 10, 13 are used to measure dedication; and items 3, 6, 9, 11, 14, 16 are used to measure absorption. A seven-point rating system is used, with 0 representing never and 6 representing every day.

Procedure

Before collecting data, the researcher obtained permission from the appropriate authorities by sending formal letters explaining the purpose of the study and assuring confidentiality. Participants were provided with an informed consent form, which outlined the study objectives, their voluntary participation, and their right to withdraw at any time without any consequences. After building rapport, the researcher explained the purpose of the study to each participant. The Bangla version of the questionnaires was then distributed and completed in a quiet and comfortable setting, with no time pressure. Once finished, participants were thanked for their time and cooperation.

Data Processing and Analysis

Participants' responses were scored based on the established scoring criteria for the measures used. Data entry and analysis were conducted using the Statistical Package for Social Science (SPSS) version 26.

Results and Discussion

The results were discussed and illustrated using figures and tables where relevant.

Section 1: Regression analysis assessed the impact of organizational justice on cyberloafing behaviors, with results displayed in Table 2 and Figure 1.

Section 2: Regression analysis evaluated the effect of organizational justice on work engagement, with results shown in Table 3 and Figure 2.

Section 3: Mediation analysis investigated the role of work engagement in the relationship between organizational justice and cyberloafing, with findings presented in Table 4 and Figure 3.

Section 4: A Correlation Matrix explored the relationship between demographic variables and cyberloafing behaviors, with results detailed in Table 5.

Justification for the Use of Regression and Correlation Analyses

Although the outcome variables in this study are measured on a Likert scale, they were treated as interval data for statistical analysis. This approach is widely accepted in social science research, where Likert-type items are often assumed to approximate interval-level measurements when they are used in aggregate or when scales consist of multiple items. Accordingly, Pearson's correlation and linear regression techniques were employed to explore the relationships and predictive strength among variables. Before analysis, the assumptions underlying these parametric methods were carefully checked, including linearity, normality, and homoscedasticity. While it is acknowledged that treating ordinal data as interval can introduce some degree of bias, this decision was made to allow for more interpretable and comparable results across studies. The potential limitations of this approach have been noted and considered in the interpretation of the findings.

Table 2.Impact of organizational justice on cyberloafing behavior.

	Predictors	*Un Standard Beta*	*β*	*t*	*p*	R^2	R^2 *Change*	*F Change*	*ANOVA for Model Fit*
	Constant	62.668		7.338	.000				
1.	Distributive Justice	.058	.005	.067	.946	.090	.090	9.824**	9.824**
2.	Interpersonal Justice	.651	.066	.836	.404				
3.	Informational Justice	-1.157	-.130	-1.684	.093				
4.	Organizational Justice	-.682	-.242	-1.768	.078				

*Note. ** indicates a .001level of significance*

Predictors*: 1. Distributive Justice; 2. Interpersonal Justice; 3. Informational Justice; 4. Organizational Justice*

Dependent Variable: *Cyberloafing*

Table 2 shows the impact of organizational justice dimensions on cyberloafing behavior. The results indicate that none of the predictors distributive justice (β = .005, p = .946), interpersonal justice (β = .066, p = .404), informational justice (β = −.130, p = .093), or organizational justice (β = −.242, p = .078) were statistically significant at the conventional p < .05 level. Although informational and organizational justice have negative beta coefficients, suggesting a potential inverse relationship with cyberloafing, these effects did not reach significance. The overall model was significant (F = 9.824, p < .001), explaining 9% of the variance in cyberloafing behavior.

Figure 1. Interaction between organizational justice and cyberloafing behavior.

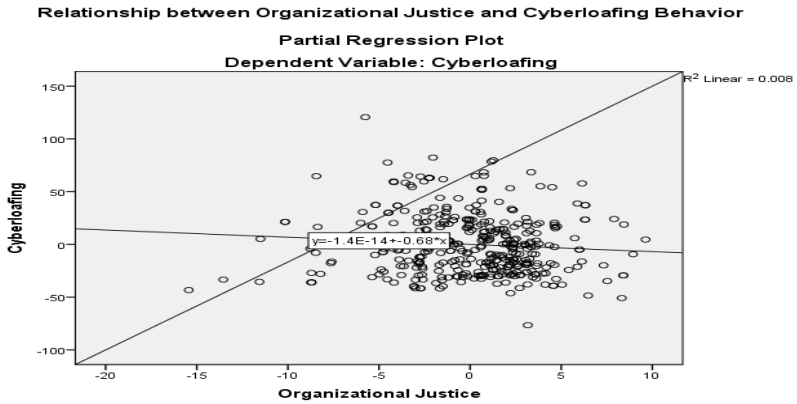


Figure 1 depicts the link between cyberloafing behavior on the y-axis and organizational justice on the x-axis. A negative correlation is found, indicating a decrease in cyberloafing behavior as organizational justice beliefs increase. Equation y = -1.4E-14 + -0.68x (R^2 = 0.008) is used to plot the linear regression line.

Table 3.Effect of organizational justice on work engagement.

Predictors	*Un Standard Beta*	*β*	*t*	*p*	R^2	R^2 *Change*	*F Change*	*ANOVA for Model Fit*
Constant	24.492		4.642	.000				
1. Distributive Justice	-.049	-.008	-.104	.917				
2. Interpersonal Justice	-.413	-.076	-.978	.329	.135	.135	15.379**	15.379**
3. Informational Justice	-.106	-.022	-.285	.776				
4. Organizational Justice	.692	.443	3.309	.001				

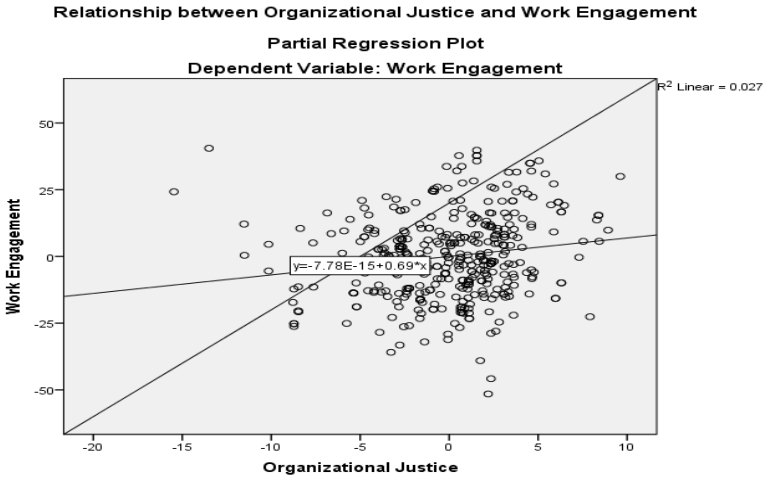
*Note. ** indicates .001level of significance*

Predictors*: 1. Distributive Justice; 2. Interpersonal Justice; 3. Informational Justice; 4. Organizational Justice*

Dependent Variable:*Work Engagement*

Table 3 displays the findings from a multiple regression analysis investigating the impact of organizational justice dimensions on work engagement. The outcomes directed that organizational justice is a significant predictor of work engagement (β = .443, t = 3.309, p = .001). This suggests that higher levels of organizational justice are linked to increased levels of work engagement.

Figure 2. Relationship between organizational justice and work engagement.



This figure illustrates the positive linear relationship between organizational justice and work engagement. As the level of perceived organizational justice increases, employee work engagement also increases. The slope of the regression line (B = 0.692), representing this relationship, is derived from the unstandardized coefficient reported in Table 3. This visual depiction supports the regression analysis, which found a statistically significant effect of organizational justice on work engagement (p = .001).

Table 4.The results of testing the mediation hypothesis.

Model	*IV(X)*	*DV(Y)*	*B*	*SE*	*t*	*p*	*Value of mediating factors*	*p*
1	Organizational Justice (X)		.570	.073	7.790	.001	a=-0.574	.001
		Cyber loafing (Y)					b=-0.396	.001
2	Organizational Justice (X)		-.574	.142	-4.033	.001	c= -0.800	.001
	Work Engagement (M)		-.396	.091	-4.357	.001	*C'*= -0.574	.001

	Cyber loafing (Y)	*Z*= -3.8011	.001

Model 1 shows a significant direct relationship between organizational justice and cyberloafing (B = 0.570, p <.001). Furthermore, the indirect effect of organizational justice through work engagement on cyberloafing is also significant (a = -0.574, p <.001). This indicates that through its effect on work engagement, organizational justice has a direct and indirect influence on cyberloafing.

In Model 2, organizational justice significantly predicted work engagement (B = −0.574, p < .001), and work engagement significantly predicted cyberloafing (b = −0.396, p < .001). The direct effect of organizational justice on cyberloafing remained significant after including the mediator (c' = −0.574, p < .001), indicating partial mediation. The Sobel test confirmed the significance of the indirect effect (Z = −3.8011, p < .001). These results suggest that work engagement partially mediates the effect of organizational justice on cyberloafing behavior.

Figure 3. The results in the model structure.

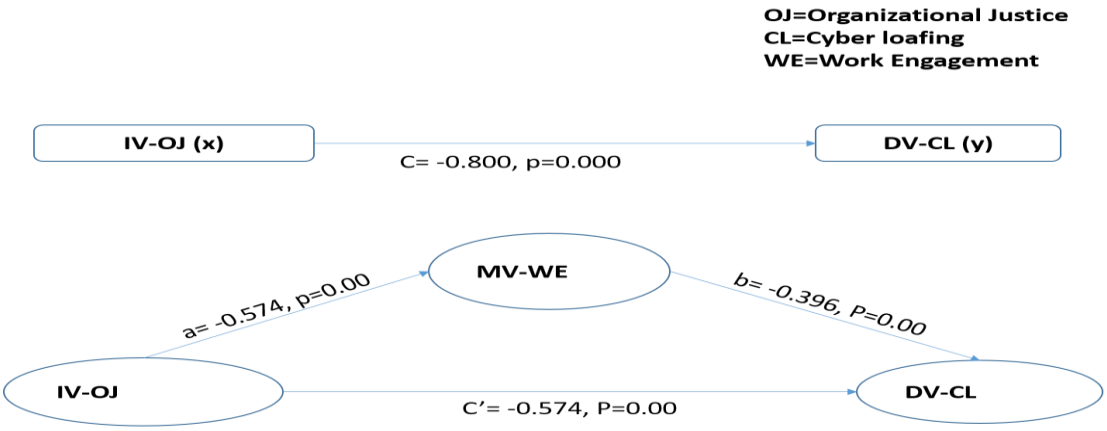


Figure 3 presents the structural model testing the mediating role of work engagementin the relationship between organizational justiceand cyberloafing**.** The direct effect of organizational justiceon cyberloafing is significant and negative **(**c = -0.800, p = 0.001), indicating that higher organizational justice reduces cyberloafing.

The mediation analysis shows that organizational justice significantly predicts work engagement **(**a = -0.574**,** p = 0.001), and work engagement, in turn, negatively predicts cyberloafing **(**b = -0.396, p = 0.001). The direct effect remains significant when controlling for work engagement **(**c′ = -0.574**,** p = 0.001), indicating partial mediation**.**

These results highlight that increased organizational justice enhances work engagement, which helps to reduce cyberloafing behavior.

Table 5. Correlation matrix between demographic variables and cyberloafing behavior.

Variables	***1***	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***	***10***	***11***

Variables	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
1. Age	*1*	-	-	-	-	-	-	-	-	-	-
2. Working Hours	*-.061*	*1*	-	-	-	-	-	-	-	-	-
3. Experience	*.507***	*-.032*	*1*	-	-	-	-	-	-	-	-
4. Salary	*.478***	*.073*	*.346***	*1*	-	-	-	-	-	-	-
5. Media Engagement	*-.057*	*-.063*	*-.127**	*-.057*	*1*	-	-	-	-	-	-
6. Sharing	*-.138***	*.067*	*-.175***	*-.026*	*.240***	*1*	-	-	-	-	-
7. Shopping	*.108***	*.019*	*-.086*	*-.007*	*.188***	*.688***	*1*	-	-	-	-
8. Real Time Updating	*-.128**	*.032*	*-.169***	*-.050*	*.132***	*.621***	*.635***	*1*	-	-	-
9. Accessing Online Content	*-.158***	*.036*	*-.174***	*-.011*	*.096*	*.526***	*.542***	*.708***	*1*	-	-
10. Gaming or Gambling	*-.131***	*.059*	*-.124**	*-.019*	*.146***	*.573***	*.568***	*.562***	*.564***	*1*	-
11. Cyberloafing	*-.157**	*.054*	*-.175***	*-.027*	*.214***	*.891***	*.859***	*.822***	*.749***	*.757***	*1*

*Note1:**Correlation is significant at.01 level (2-tailed) and *Correlation is significant at .05 level (2-tailed)*

Table 5 presents the correlation matrix examining the relationships between demographic and internet-related variables with cyberloafing behavior. The results indicate that age ($r = –.157$, $p < .05$) and work experience ($r = –.175$, $p < .01$) are significantly and negatively correlated with cyberloafing, suggesting that older and more experienced employees are less likely to engage in such behavior. Additionally, several online activity variables (listed under demographic variables), such as media engagement ($r = .214$, $p < .01$), sharing ($r = .891$, $p < .01$), shopping ($r = .859$, $p < .01$), real-time updating ($r = .822$, $p < .01$), accessing online content ($r = .749$, $p < .01$), and gaming or gambling ($r = .757$, $p < .01$), also show strong positive correlations with cyberloafing. These findings indicate that cyberloafing behavior is significantly associated not only with traditional demographic variables (such as age and experience) but also with patterns of online activity, including media engagement, shopping, and gaming.

The present study investigates the relationship between organizational justice and cyberloafing,

exploring the mediating role of work engagement in this relationship. It emphasizes the importance of understanding what drives employees to engage in cyberloafing and suggests that perceptions of fairness at work, or organizational justice, may play a significant role.The present study formulated four research hypotheses to examine the research question. The study also considered the influence of demographic variables such as age, working hours, experience, salary, media engagement, sharing, shopping, real-time updating, accessing online content, and gaming/gambling on cyberloafing behavior.

The first hypothesis is supported by the results presented in Table 2 and Figure 1, which show that organizational justice is negatively associated with cyberloafing. Specifically, organizational justice also demonstrates a statistically significant negative relationship with cyberloafing. These findings align with previous research findings highlighting the importance of transparent communication and access to relevant information in promoting employee engagement and reducing counterproductive work behaviors (Ng and Feldman, 2012; Colquitt, 2001).

Concerning the second hypothesis, the results indicated a significant positive association between organizational justice and work engagement. Organizational justice also emerged as a significant predictor of work engagement. This relationship suggests that a higher level of organizational justice produces more work engagement among employees. The findings supported the hypothesis and were consistent with the previous research results (Colquitt, 2001). Workers who perceive their organizations as just and fair are more likely to feel valued, respected, and motivated, leading to increased levels of engagement with their work responsibilities and organizational goals (Ambrose and Schminke, 2003; Colquitt *et al.*, 2007).

The findings related to the third hypothesis indicate that organizational justice has a significant negative relationship with cyberloafing. Employees who perceive higher levels of organizational justice are less likely to engage in cyberloafing behaviors, which is consistent with prior research (Sapkota *et al.*, 2024; Spector *et al.*, 2011). In addition, this study extends the existing literature by examining the mediating role of work engagement in this relationship. The results reveal that work engagement significantly mediates the link between organizational justice and cyberloafing. This suggests that when employees experience greater organizational justice, they tend to be more engaged in their work, which in turn reduces their likelihood of engaging in cyberloafing behaviors (Bakker and Demerouti, 2017).

Concerning the fourth hypothesis, the results reveal a strong positive association between cyberloafing and a range of demographic variables (different online activities), such as sharing, shopping, real-time updating, accessing online content, and gaming. These findings indicated that a greater possibility of cyberloafing is seen in those who engage in these online activities more regularly. This is consistent with previous studies (Chen *et al.*, 2020; Lim, 2016) that have emphasized the fact that particular online activities contribute to encouraging cyberloafing behaviors. Furthermore, it's interesting to note the inverse relationships between cyberloafing and demographic factors like experience and age. These results indicate that younger workers with less work experience are more likely to engage in cyberloafing activities. This idea follows research showing that younger people are typically more technologically savvy and might be

more likely to use the internet while at work (Nelson *et al.*, 2020; Ragu-Nathan *et al.*, 2008).

The present study had some limitations that should be addressed by future researchers.The study utilized a cross-sectional design, which limits the ability to establish causal relationships between organizational justice, work engagement, and cyberloafing behaviors. Future research employing longitudinal designs could provide a more robust understanding of these relationships over time. Additionally, the research focused only on bank employees in Dhaka city, limiting the generalizability of the findings to other geographical locations or industries.

Conclusion

The current study investigated the interplay between organizational justice, work engagement, and cyberloafing among bankemployees in Dhaka city.The study shows that organizational justice plays an important role in shaping employee behavior. It emphasizes that reducing cyberloafing requires promoting fairness in the workplace. When employees are treated fairly and communication is clear, they are more likely to be engaged in their work. Higher work engagement can help reduce the tendency to cyberloaf. Future research can support organizations in developing better strategies to manage cyberloafing and build a more engaged and productive workforce.

References

Agarwal, U. A. (2014). Linking Justice, Trust and Innovative Work Behaviour to Work Engagement. *Personnel Review,* 43(1): 41-73. https://doi.org/10.1108/PR-02-2012-0019

Akbulut, Y., Dönmez, O. and Dursun, Ö. Ö. (2017). Cyberloafing and Social Desirability Bias among Students and Employees. *Computers in Human Behavior*, 72: 87–95. https://doi.org/10.1016/j.chb.2017.02.043

Ali-Hassan, H., Nevo, D., Kim, H. and Perelgut, S. (2011). Organizational Social Computing and Employee Job Performance: The Knowledge Access Route. In *2011, 44th Hawaii International Conference on System Sciences*,1–10. IEEE. https://doi.org/10.1109/ HICSS.2011.338

Ambrose, M. L. and Schminke, M. (2003). Organization Structure as a Moderator of the Relationship between Procedural Justice, Interactional Justice, Perceived Organizational Support, and Supervisory Trust. *Journal of Applied Psychology,* 88(2): 295–305. https://doi.org/10.1037/0021-9010.88.2.295

Ambrose, M. L. and Schminke, M. (2009). The Role of Overall Justice Judgments in Organizational Justice Research: A Test of Mediation. *Journal of Applied Psychology*, 94(2): 491. https://doi.org/10.1037/a0013203

Andel, S. A., Kessler, S. R., Pindek, S., Kleinman, G. and Spector, P. E. (2019). Is cyberloafing more complex than we originally thought? Cyberloafing as a coping response to workplace aggression exposure. *Computers in Human Behavior,* 101: 124–130. https://doi.org/10.1016/j.chb.2019.07.014

Bakker, A. B. and Demerouti, E. (2008). Towards a Model of Work Engagement. *Career Development International*, 13(3): 209–223. https://doi.org/10.1108/ 13620430810870476

Bakker, A. B. and Demerouti, E. (2017). Job Demands-Resources Theory: Taking Stock and

Looking Forward. *Journal of Occupational Health Psychology*, 22(3): 273–285. https://doi.org/10.1037/ocp0000056

Canaan-Messarra, L., Karkoulian, S. and McCarthy, R. (2011). To Restrict or Not to Restrict Personal Internet Usage on the Job. *Education, Business and Society: Contemporary Middle Eastern Issues*, 4(4): 253–266. https://doi.org/10.1108/17537981111190042

Chang, K. and Smithikrai, C. (2010). Counterproductive Behaviour at Work: An Investigation into Reduction Strategies. *The International Journal of Human Resource Management*, 21(8): 1272–1288. https://doi.org/10.1080/09585192.2010.483852

Chen, Y., Gao, X., Zhu, R. and Yuan, X. (2020). Understanding Cyberloafing Behavior in the Workplace: A Self-Determination Perspective. *Information and Management*, 57(2): 103219. https://doi.org/10.1016/j.im.2019.103219

Colquitt, J. A. (2001). On the Dimensionality of Organizational Justice: A Construct Validation of A Measure. *Journal of Applied Psychology*, 86(3): 386–400. https://doi.org/ 10.1037/ 0021-9010.86.3.386

Colquitt, J. A., Conlon, D. E., Wesson, M. J., Porter, C. O. and Ng, K. Y. (2001). Justice at the Millennium: A Meta-analytic Review of 25 Years of Organizational Justice Research. *Journal of Applied Psychology*, 86(3): 425–445. https://doi.org/10.1037/0021-9010.86.3.425

Den Hartog, D. N. and Belschak, F. D. (2012). Work Engagement and Machiavellianism in the Ethical Leadership Process. *Journal of Business Ethics*, 107: 35-47. https://doi.org/ 10.1007/s10551-012-1296-4

Elhanafy, E. (2018). Relationship between Cyberloafing, Organizational Justice, Work Engagement and Organizational Trust among Nurses. *Int J NursSci*, 4: 157–68. https://doi.org/10.5829/idosi.wjns.2018.157.168

Hameed, Z., Khan, I. U., Sheikh, Z., Islam, T., Rasheed, M. I.and Naeem, R. M. (2019). Organizational Justice and Knowledge Sharing Behavior: The Role of Psychological Ownership and Perceived Organizational Support. *Personnel Review*, 48(3): 748–773. https://doi.org/10.1108/PR-07-2017-0217

Jamaluddin, H., Ahmad, Z., Alias, M. and Simun, M. (2015). Personal Internet Use: The Use of Personal Mobile Devices at the Workplace. *Procedia-Social and Behavioral Sciences*, 172: 495–502. https://doi.org/10.1016/j.sbspro.2015.01.391

Khari, C. and Sinha, S. (2025). Job autonomy and cyberloafing: A Mediated Moderation Model of Work Engagement and Mindfulness. In *Evidence-Based Hrm: A Global Forum for Empirical Scholarship*, 13:246–265. Emerald Publishing Limited. https://doi.org/ 10.1108/EBHRM-05-2023-0117

Kim, S. and Byrne, S. (2011).Conceptualizing Personal Web Usage in Work Contexts: A Preliminary Framework.*Computers in Human Behavior*, 27(6): 2271–2283. https://doi.org/10.1016/j.chb.2011.07.006

Koay, K. Y., Soh, P. C. H. and Chew, K. W. (2017). Do Employees' Private Demands Lead to Cyberloafing? The Mediating Role of Job Stress. *Management Research Review*, 40(9): 1025–1038. http://dx.doi.org/10.1108/MRR-11-2016-0252

Koch, H., Gonzalez, E. and Leidner, D. (2012). Bridging the Work/Social Divide: The Emotional

Response to Organizational Social Networking Sites. *European Journal of Information Systems*, 21:699–717. https://doi.org/10.1057/ejis.2012.18

Lim, V. K. (2002). The IT Way of Loafing on the Job: Cyberloafing, Neutralizing and Organizational Justice. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 23(5): 675–694. https://doi.org/10.1002/job.161

Lim, V. K. (2016). Cyberloafing at the Workplace: Gain Or Drain on Work? *Behaviour and Information Technology*, 35(6): 435-448. https://doi.org/10.1080/0144929X.2016.1161848

Lim, V. K., Teo, T. S. and Loo, G. L. (2002). How Do I Loaf Here? Let Me Count the Ways. *Communications of the ACM*, 45(1): 66–70. https://doi.org/10.1145/502269.502300

Malik, M. I., Saleem, F. and Ahmad, M. (2010).Work-life Balance and Job Satisfaction among Doctors in Pakistan. *South Asian Journal of Management*, 17(2): 112.

Moqbel, M., Nevo, S. and Kock, N. (2013). Organizational Members' Use of Social Networking Sites and Job Performance: An Exploratory Study. *Information Technology and People*, 26(3): 240–264. https://doi.org/10.1108/ITP-10-2012-0110

Nelson, M. R., Lowry, P. B. and Whinston, A. B. (2020). Why Do People Share? *Psychology and Marketing*, 37(3): 377–394. https://doi.org/10.1002/mar.21306

Ng, T. W. and Feldman, D. C. (2012). Employee Voice Behavior: A Meta-Analytic Test of the Conservation of Resources Framework. *Journal of Organizational Behavior*, 33(2): 216–234. https://doi.org/10.1002/job.733

O'Neill, T. A., Hambley, L. A. and Chatellier, G. S. (2014).Cyberslacking, Engagement, and Personality in Distributed Work Environments. *Computers in Human Behavior*, 40: 152–160. https://doi.org/10.1016/j.chb.2014.01.019

Oosthuizen, A., Rabie, G. H. and De Beer, L. T. (2018).Investigating cyberloafing, organisational justice, work engagement and organisational trust of South African retail and manufacturing employees. *SA Journal of Human Resource Management*, 16(1): 1–11. https://doi.org/10.4102/sajhrm.v16i0.1001

Ragu-Nathan, T. S., Tarafdar, M., Ragu-Nathan, B. S.and Tu, Q. (2008). The Consequences of Technostress for End Users in Organizations: Conceptual Development and Empirical Validation. *Information Systems Research*, 19(4): 417–433. https://doi.org/10.1287/isre.1070.0165

Rajah, R. and Lim, V. K. (2011).Cyberloafing, neutralization, and organizational citizenship behavior.In *Proceedings of the 2011 Academy of Management Annual Meeting*.

Sapkota, T., Pokhrel, S. and Pokhrel, L. (2024). Psychological Entitlement and Cyberloafing: Mediating Role of Perceived Organizational Justice among Employees of Nepali Commercial Banks. *Journal of Business and Management Research*, *6*(1-2):18–31. https://doi.org/10.3126/jbmr.v6i1-2.76516

Schaufeli, W.B., Salanova, M., Gonzalez-Rom a, V. and Bakker, A.B. (2002). The Measurement of Engagement and Burnout: A Two Sample Confirmatory Factor Analytic Approach. *Journal of Happiness Studies*, 3: 71–92. https://doi.org/10.1023/ A:1015630930326

Sonnentag, S., Reinecke, L., Mata, J. and Vorderer, P. (2018). Feeling Interrupted Being Responsive: How Online Messages Relate to Affect at Work. *Journal of Organizational Behavior*, 39(3): 369–383. https://doi.org/10.1002/job.2239

Sonnentag, S., Venz, L. and Casper, A. (2017). Advances in Recovery Research: What Have We Learned? What Should be Done Next? *Journal of Occupational Health Psychology*, 22(3): 365. https://doi.org/10.1037/ocp0000079

Spector, P. E., Fox, S., Penney, L. M., Bruursema, K., Goh, A. and Kessler, S. (2011). Yielding to (Cyber) Temptation: Exploring the Buffering Role of Self-control in the Relationship between Organizational Justice and Cyberloafing Behavior in the Workplace.*Journal of Research in Personality***,** 45(2): 247–251. https://doi.org/10.1016/j.jrp.2011.01.006

Tapia, A. H. and Tapia, A. H. (2006). Information Technology Enabled Employee Deviance. *IT workers: Human Capital Issues in a Knowledge-Based Environment*, 1: 405–439.

Van Doorn, O. N. (2011). Cyberloafing: A Multi-Dimensional Construct Placed in a Theoretical Framework. *Van Doorn, ON Eindhoven University of Technology The Netherlands*.

Vitak, J., Crouse, J. and LaRose, R. (2011). Personal Internet Use at Work: Understanding Cyberslacking. *Computers in Human Behavior*, 27(5): 1751–1759. https://doi.org/ 10.1016/j.chb.2011.03.002

Wagner, D. T., Barnes, C. M., Lim, V. K. and Ferris, D. L. (2012). Lost Sleep and Cyberloafing: Evidence from the Laboratory and a Daylight Saving Time Quasi-Experiment. *Journal of Applied Psychology*, 97(5): 1068. https://psycnet.apa.org/doi/10.1037/a0027557

Wu, J., Mei, W., Liu, L. and 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. https://doi.org/10.1016/j.jbusres.2020.02.043

Yeik, K. K. (2017). *Antecedents and Consequences of CyberloafingAmong ICT Employees in MSC Status Companies* (Doctoral dissertation, Multimedia University (Malaysia). https://doi.org/10.5210/fm.v22i3.7302

Zaman, F. T. Z.B. and Tonney, U.K. (2023). How Organizational Justice Influences Cyberloafing: The Mediating Effect of Work Engagement. *Unpublished Manuscript.* Department of Psychology, Jagannath University

Zaman, F. T. Z.B.,Tonney, U.K., Sreya, F. B.A. and Jaba, R.R. (2023). How Organizational Justice Influences Cyberloafing: The Mediating Effect of Work Engagement. *Unpublished Manuscript*. Department of Psychology, Jagannath University

Zoonen, W. V., Verhoeven, J. W., and Elving, W. J. (2014).Understanding Work-Related Social Media Use: An Extension of the Theory of Planned Behavior. *International Journal of Management, Economics and Social Sciences*, 3(4).