Work-related use of information and communication technologies after-hours (W_ICTs) and workplace cheating behavior: A chained mediation model

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Abstract. Based on the conservation of resources theory, this paper explores the impact and mechanism of work-related use of information and communication technologies after hours (W_ICTs) on workplace cheating behavior. A total of 400 valid questionnaires were collected in this study. The results show that W_ICTs can have a positive effect on workplace cheating behavior. Meanwhile, W_ICTs can decrease the level of emotional exhaustion through enhancing perceived job control of employees, and increase the level of emotional exhaustion by enhancing workplace ostracism. Perceived job control, workplace ostracism and emotional exhaustion play a chain mediating role between W_ICTs and workplace cheating behavior. According to our research, leaders are suggested to select effective communication tools, establish complete rules and regulations, and pay attention to the supplement of employees' psychological resources, so as to reduce the impact of W_ICTs on workplace cheating behavior.

Keywords : Work-related use of information and communication technologies after hours (W_ICTs); workplace cheating behavior; perceived job control; work ostracism; emotional exhaustion.

1. Introduction

Catalyzed by the COVID-19 pandemic, the speed of online office software application in the work scene has been accelerated. The boundary between work domain and non-work domain has become blurrier. "Online Slacking Off" has once become a hot word in the workplace. Workplace cheating behavior was defined as employees' unethical behaviors for the purpose of obtaining improper advantages and undeserved benefits in the organization [1]. For example, employees may procrastinate on work, conceal their lateness or skip work, lie about their performance, violate standard operation and so on. According to PWC's *Global Economic Crime and Swindle Report* in 2022, over half of cheating behaviors involved internal employees. Previous studies have shown that workplace cheating behavior would not only decrease organization's revenue, but also affect its reputation and ultimately affect its development [1, 2].

Previous studies mainly explored the influence of situational factors within an organization, including performance pressure, leadership's mental bottom-line and abusive management, on workplace cheating behavior [3, 4]. However, research fell short in taking the influence of changes in external work environment and working style on employees' cheating behaviors into account. Some scholars pointed out that employees' slacking-off behaviors are closely related to the change of work mode brought about by scientific and technological progress [5]. Under the new normal that employees use instant messaging tools to handle tasks after work, it is of great significance to explore the impacts of employees' W_ICTs on their workplace cheating behaviors.

The concept of W_ICTs was proposed by Richardson et al., which refers to employees' behaviors to complete tasks or communicate with colleagues through communication tools in non-working hours [6]. W_ICTs may stimulate employees' positive behaviors, such as increasing their attention to opportunities and work participation, but it may also lead to employees' negative behaviors, such as work-family conflicts [7, 8, 9]. According to the conservation of resources theory, individuals have the intention to preserve and obtain resources. Also, their cognition and evaluation of their own resource status might affect their subsequent attitudes and behaviors [10]. Our study discovers when employees communicate with colleagues in non-working hours, their work and life

can no longer be limited by time and space, making job more flexible. That is, energy resources are supplemented and fatigue can be relieved. However, employees' behavior of W_ICTs can also encroach on their colleagues' resources during non-working hours, triggering the colleagues' psychological defense mechanism and thus depleting their own resources. Therefore, this study considers the chain mediating effect of perceived job control, workplace ostracism and emotional exhaustion based on the conservation of resources theory, and explore the impact of W_ICTs on workplace cheating behavior.

This study explores the occurrence mechanism of workplace cheating behavior under the new normal of W_ICTs, which provides a theoretical basis for organizations to control and reduces workplace cheating behavior. At the same time, it expands the classic conservation of resources theory, which has important theoretical and practical significance.

2.   Theoretical Basis and Research Hypothesis

2.1 The Mediating Role of Perceived Job Control Between W_ICTs and Emotional Exhaustion

According to the conservation of resources theory, an individual's environment plays an important role in the acquisition and maintenance of his or her resources [11]. Among them, exogenous resources may not only bring gains to internal resources, but also bring losses to internal resources. W_ICTs refers to the use of portable communication devices and applications to complete work-related tasks during off-working hours. Literature studies have confirmed that the process of work connectivity increases the penetration and flow of resources in different fields [12, 13].

Perceived job control refers to the extent to which employees can influence and control their own work, namely the degree of autonomy given to employees [14]. When employees engage in W_ICTs, the essence is to acquire an exogenous resource that makes them no longer limited by time and space, which helps employees to flexibly arrange their work progress [15] and thus feel the autonomy and discretion of work [7]. As a result, W_ICTs can make employees deal with their tasks more freely, which can make them feel that their autonomy in handling work is improved, namely, the perceived job control is enhanced.

Employees' high-level of perceived job control helps them to complete work more confidently [16] and have more abundant psychological resources. According to the conservation of resource theory, when individuals have sufficient physical, psychological and conditional resources, they can deal with pressure more easily. Emotional exhaustion is regarded as a kind of shortage resources, which refers to the fatigue state of employees when resources are excessively consumed [17]. When employees have a high level of perceived job control, their psychological resources will be supplemented, and the negative emotions represented by emotional exhaustion will be suppressed. Therefore, hypothesis 1 is proposed in this study:

Hypothesis 1: Perceived job control has a mediating effect on the relationship between W_ICTs and emotional exhaustion.

2.2 The Mediating Role of Emotional Exhaustion Between Perceived Job Control and Workplace Cheating Behavior

Energy resource is regarded as one of the resource types owned by individuals, which refers to the approach to help individuals obtain other resources they need [18]. According to Hobfoll's explanation of the conservation of resources theory, the input of resources can not only supplement individual resources, but also restrain the loss of resources [18, 19]. As an energy resource acquired by employees, high level of perceived job control can help alleviate negative effects such as emotional exhaustion [20]. For example, Konze proves that when employees have autonomy in work, the level of job burnout of employees will be alleviated [21].

According to previous studies, employees' cheating behaviors are mainly affected by the self-control resources possessed by individuals, and individuals lacking self-control resources may engage in self-serving cheating behaviors [22, 23], while sufficient self-control resources are conducive to reducing the occurrence of cheating behaviors [24]. When employees are emotionally exhausted, they will be more likely to exaggerate their work performance and cheating behaviors in order to avoid consuming their own resources [25].

Therefore, when employees have high level of perceived job control, they will have sufficient work resources, and then the emotional exhaustion of employees will be suppressed, and the occurrence of workplace cheating will be reduced. Hypothesis 2 is proposed in this study:

Hypothesis 2: Emotional exhaustion has a mediating effect on the relationship between job control and workplace cheating behavior.

2.3 The Mediating Role of Workplace Ostracism Between W_ICTs and Emotional Exhaustion

Workplace ostracism refers to the degree of indifference or isolation experienced by employees from others in the working environment, which is a kind of subjective feeling [26]. Previous scholars have pointed out the main causes of workplace ostracism in relevant studies, such as the characteristics of the outcast, the characteristics of the ostracized and the environmental characteristics of the ostracized [27].

When an employee performs W_ICTs, the working environment of other employees who engage in the communication behavior will change. In other words, a large amount of resources are still required to meet work requirements after work. As a result, employees' non-working time resources flow to the work field [28], and their personal energy and resources are consumed. According to the conservation of resources theory, when individual resources are depleted, on the one hand, employees may suffer from job burnout and other negative emotions; on the other hand, employees will take actions to protect existing resources and tend to quickly recover from resource depletion. Therefore, due to the loss of time, energy and other resources of employees who are required to perform W_ICTs, the psychological defense mechanism of employees who want to reduce W_ICTs might be triggered for the purpose of resource preservation. Then, the employee may develop feelings of ostracism due to the failure of accepting the increasing job demands. The employees may then vent their anger on those employees who let them perform W_ICTs. If the situation occurs frequently, it can lead to ostracism in workplaces.

As workplace ostracism is a negative interpersonal mode [29], employees will be psychologically threatened by workplace ostracism, thus reducing their work resources. The conservation of resources theory states that employees would start the loss spiral in order to reduce the depletion of resources. Workplace ostracism will reduce the emotional resources of employees and colleagues, which may lead to the emotional exhaustion of employees [30]. Therefore, this paper suggests that workplace ostracism plays a mediating role in the relationship W_ICTs and emotional exhaustion. Hypothesis 3 is proposed in this study:

Hypothesis 3: Workplace ostracism plays a mediating role in the relationship between W_ICTs and emotional exhaustion.

2.4 The Mediating Role of Emotional Exhaustion Between Workplace Ostracism and Workplace Cheating Behavior

The previous literatures believed that when individuals suffer resource loss, they might tend to save resources in order to reduce it and decrease work input due to the need of resource conservation [10]. When employees encounter workplace ostracism, they may spend energy and time trying to guess the position of their colleagues and seek the reasons for the ostracism [31], and they will feel the loss of their own resources. On the one hand, if employees are faced with greater resource loss, they are more prone to irrationality, lack of self-control and low future-oriented behavior tendency [32]. Studies have shown that negative stress stimulation can trigger employees' self-protective behavior of workplace cheating [1]. Therefore, this study believes that when

employees suffer from workplace ostracism, their own resources will decrease, and they will tend to perform workplace cheating behaviors such as pretending to work hard and concealing work mistakes.

On the other hand, Kim et al. believe that the establishment and maintenance of social relations and coping with various uncertainties are the main causes of individual emotional exhaustion [33]. For employees who suffer from workplace ostracism, their limited personal resources are depleted due to the high pressure. Based on loss spirals in the conservation of resource theory, employees are prone to a series of negative emotions such as anxiety or depression, which further aggravate the depletion of resources and produce negative effects [34]. According to the conservation of resource theory, when an employee is in a state of emotional exhaustion, in order to avoid further consumption of emotional resources, the employee usually reduces the work commitment. However, in order to avoid punishment due to reduced performance, employees may perform cheating behaviors such as pretending to work hard or evading responsibility [5, 35]. However, due to the decline of self-control ability of individuals in the state of resource depletion, when employees are in the state of emotional exhaustion, they may commit cheating behaviors in order to obtain instant rewards or avoid punishment [36].

Based on this, this study suggests that workplace ostracism consumes the personal resources of the excluded employees, which may lead to the employees' emotional exhaustion, and then lead to the occurrence of workplace cheating behaviors of the excluded employees.

Hypothesis 4: Emotional exhaustion plays a mediating role between workplace ostracism and workplace cheating behaviors.

Based on the above hypothesis, the following two chain mediation hypotheses are proposed in this paper, and the research model is shown in Figure 1.

P1: W_ICTs → perceived job control → emotional exhaustion → workplace cheating behavior
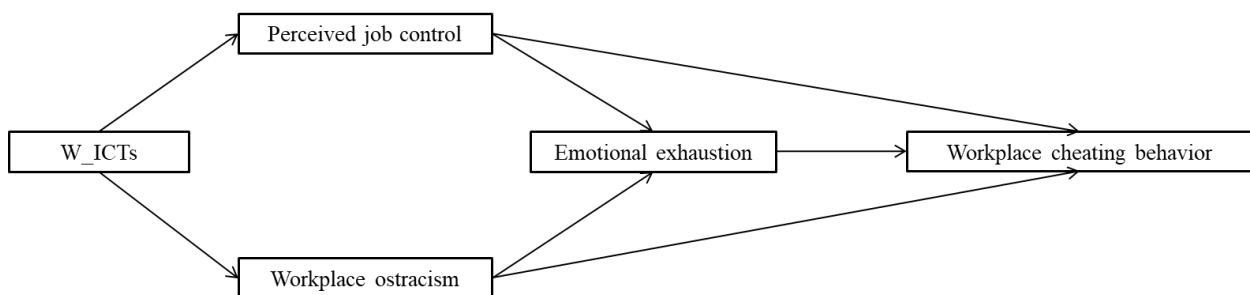P2: W_ICTs → workplace ostracism → emotional exhaustion → workplace cheating behavior

Figure 1. Research model

3. Research Samples and Data Collection

3.1 Sample Selection and Data Collection

This paper collected data according to the questionnaire survey method and issued questionnaires through the online survey platform. The research objects were mainly front-line employees, grass-roots managers and middle-level managers in the electronics and pharmaceutical industries. A total of 464 questionnaires were collected in this study, of which 400 were valid, with an effective recovery of 86.2%. The specific distribution of the questionnaire was as follows: in terms of gender, males accounted for 45% and females accounted for 55%; The age group was divided into 6 regions which were between the ages of 25 and below, 26 to 30, 31 to 35, 36 to 40, 41 to 45 and above 46 with the proportion of 3.8%, 38.8%, 36.3%, 11.3%, 6.3% and 3.8%, respectively. The education level was divided into four sections: senior high school and below, junior college and bachelor's degree, master's degree, doctor's degree and above, accounting for 2.5%, 63.7%, 31.3% and 2.5% respectively. The size of enterprises is divided into less than 20

employees, 20 to 99 employees, 100 to 499 employees, 500 to 999 employees and more than 1,000 employees, accounting for 6.8%, 28.7%, 25.5%, 9.3% and 29.8%, respectively.

3.2 Measurement of Variables

This study used scales in accordance with the translation-back principle to ensure the validity of the measurement tools. First of all, 5 master students majoring in business administration were invited to translate the English scales, and then the scales were translated back by two experts in human resources in order to adjust the Chinese scales. All scales were used on a 5-point Likert scale (1-5, from "strongly disagree" to "strongly agree").

W_ICTs. The scale revised by Huo et al. was selected, with 3 questions in total [37], including "In non-working hours, I will check all kinds of information related to work (such as group messages, news, emails, online notifications)". The Cronbach's α was 0.955.

Perceived job control. Perceived job control scale compiled by Kim et al. was selected, including four questions such as "I can decide the time to finish work" [38]. The Cronbach's α was 0.818.

Workplace ostracism: The workplace ostracism was measured by the scale revised by Samma was selected, including 5 questions such as "Some colleagues are unwilling to work with me" [39]. The Cronbach's α was 0.952.

Emotional exhaustion. The emotional exhaustion scale revised by Yan et al. was selected, including 5 questions such as "I feel too tired after dealing with work in non-working hours" [40]. The Cronbach's α was 0.944.

Workplace cheating behavior. The cheating behavior scale revised by Mitchell selected, including 5 questions such as "I will conceal my absence at work" [1]. The Cronbach's α was 0.962.

4. Data Analysis and Results

4.1 Common Method Variance Test

The Harman single factor test was used to test the common method bias. The first factor showed 37.4% of the variation, which was less than 40% of the standard. At the same time, the unmeasured potential method factor effect control method was used to test the common method deviation, as shown in Table 1. Compared with the five-factor model, the common method factor model was not significantly improved, indicating that though variation of homologous method may exist, it has little influence on the research.

4.2 Confirmatory Factor Analysis

The factor loading of all questions in this study was greater than 0.6, and the AVE values of W_ICTs, perceived job control, workplace ostracism, emotional exhaustion, and workplace cheating behavior were greater than 0.7. Therefore, converging validity of this study is accepted. The results of confirmatory factor analysis are shown in Table 1. The fitting degree of the five-factor model is significantly better than other models ($\chi2/df=3.666$; RMSEA = 0.082; SRMR = 0.057; TLI = 0.939; CFI=0.948), indicating the discriminative validity is accepted.

Model	Factor	χ^2/ df	TLI	CFI	RMSEA	SRMR	Model comparison test	
							$\Delta\chi^2$	Δdf
1.Five-factor model	$X;M_1;M_2;M_3;Y$	3.666	0.939	0.948	0.082	0.057		
2.Four-factor model	$X+M_1;M_2;M_3;Y$	11.530	0.758	0.791	0.162	0.164	1304.433	4
3.Three-factor model	$X+M_1+M_2;M_3;Y$	15.245	0.673	0.713	0.189	0.169	1959.430	7
4.Two-factor model	$X+M_1+M_2+M_3;Y$	21.276	0.535	0.586	0.225	0.202	3009.115	9
5.One-factor model	$X+M_1+M_2+M_3+Y$	31.238	0.306	0.379	0.275	0.232	4723.991	10
6. Common method factor model	Five-factor+CMV	3.042	0.953	0.965	0.072	0.039		

Note: X: W_ICTs, M1: perceived job control, M2: workplace ostracism, M3: emotional exhaustion, Y: workplace cheating behavior, CMV: common method factor.

Table 1. Confirmatory factor analysis

4.3 Descriptive Statistical Analysis

In this study, SPSS 26.0 software was used for statistical analysis. The mean value, standard deviation of each variable and the correlation coefficient between variables were shown in Table 2. As can be seen from Table 2, W_ICTs is significantly positively correlated with perceived job control ($r = 0.213$, $p < 0.001$), workplace ostracism ($r = 0.137$, $p < 0.01$), and cheating behaviors ($r = 0.197$, $p < 0.001$). perceived job control is positively correlated with workplace ostracism ($r=-0.329$, $p < 0.001$), emotional exhaustion ($r = -0.345$, $p < 0.001$) and cheating behaviors ($r = -0.118$, $p < 0.05$) were significantly negatively correlated, while workplace ostracism was significantly positively correlated with emotional exhaustion ($r = 0.330$, $p < 0.001$) and cheating behavior ($r = 0.525$, $p < 0.001$). Emotional exhaustion was positively correlated with cheating behavior ($r=0.279$, $p < 0.001$).

Table 2. Descriptive statistics and correlation analysis

Variable	Mean	SD	1	2	3	4	5	6	7	8	9
1.Gender	0.55	0.50	1								
2.Education	2.20	1.54	0.052	1							
3.Age	4.48	0.90	-0.110*	-0.087	1						
4.Seniority	3.30	1.36	-0.041	-0.227***	0.078	1					
5.W_ICTs	3.37	1.09	-0.002	0.007	-0.028	0.060	1				
6.PJC	3.67	0.70	0.062	0.058	-0.013	-0.134**	0.213***	1			
7.WO	2.04	0.89	-0.067	-0.054	0.012	0.144**	0.137**	-0.329***	1		
8.EE	3.14	1.06	-0.18	0.023	0.081	0.127*	0.019	-0.345*	0.330	1	

			4***					**	***	0.27 9***	
9.WCB	2.13	1.07	-0.168**	-0.067	0.077	0.046	0.197***	-0.118*	0.525***	0.279***	1

Note: * means p < 0.05, ** means p < 0.01, *** means p < 0.001. SD: standard deviation; PJC: perceived job control; WO: workplace ostracism; EE: emotional exhaustion; WCB: workplace cheating behavior.

5. Structural Model Testing

Compared with traditional regression analysis, structural equation model (SEM) is a more suitable testing tool for the model with more links and longer paths. In this paper, smart PLS was used for analysis. The direct effect and action path are shown in Figure 2. The main fitting indexes of the model meet the requirements, indicating that the sample data is well matched with the theoretical model.
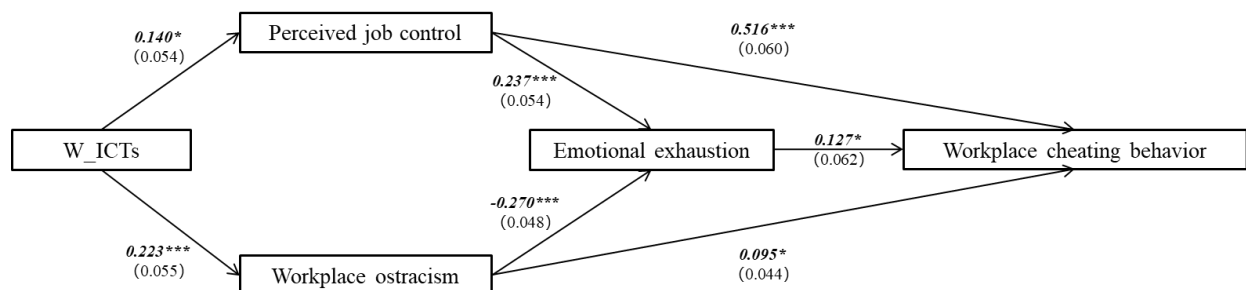
Note: N = 322, *p< 0.05, **p< 0.01, ***p<0.001
Figure 2. The path and effect from W_ICTs to workplace cheating behavior

Figure 2 shows that W_ICTs influences emotional exhaustion through two paths: perceived job control and workplace ostracism, which is consistent with the hypothesis. On the one hand, W_ICTs enables employees to have more flexible work arrangements, thus improving employees' perceived job control, and improving their psychological resources to restrain emotional exhaustion. Hypothesis 1 is supported. On the other hand, W_ICTs might consume work resources, and employees will make up for the resources consumed in the process of W_ICTs through workplace ostracism, thus leading to emotional exhaustion of employees. Hypothesis 2 is supported.

As a psychological resource, the perceived job control can alleviate the emotional exhaustion of employees. Workplace ostracism reduces the emotional resources of employees, which in turn exacerbates employees' emotional exhaustion. In order to avoid further loss of resources, employees may lead to unethical behaviors such as deceiving work results, leading to workplace cheating behavior. Hypothesis 3 and 4 are supported.

The Boostrapping test was applied to analyze the two chain mediating effects, and the analysis results were shown in Table 3. The Bootstrap 95% confidence interval of the total mediating effect between W_ICTs and workplace cheating behavior did not contain 0. These results indicate that perceived job control, workplace ostracism, and emotional exhaustion have significant mediating effect between W_ICTs and workplace cheating behavior (effect value: 0.090).

Table 3. Bootstrapping test of chained mediation effect

Chain mediating action path	Effect value	Standard deviation SE	95% Confidence Interval	
			Lower limit	Upper limit
Total effect	0.090	0.031	0.032	0.154
Path 1: X→M$_1$→M$_3$→Y	-0.008	0.004	-0.017	-0.001
Path 2: X→M$_2$→M$_3$→Y	0.004	0.003	0.001	0.011

Note: X: W_ICTs, M1: perceived job control, M2: workplace ostracism, M3: emotional exhaustion, Y: workplace cheating behavior.

6.   Theoretical Significance and Management Enlightenment

6.1 Theoretical Implications

Based on the conservation of resource theory, this study deeply explores the internal mechanism of the influence of W_ICTs on workplace cheating behaviors, and examines the chained mediating effect of three variables, namely, perceived job control, workplace ostracism and emotional exhaustion. The paper also analyzes the different effects of W_ICTs on emotional exhaustion and workplace cheating behavior through the two paths of perceived job control and workplace ostracism, which has important theoretical significance.

Firstly, this paper studies workplace cheating behavior, an important variable affecting organizational development, in the context of W_ICTs for the first time. The previous researches on workplace cheating behavior mainly focused on the situational factors within an organization [3, 4, 5], and didn't take the impact of working online on employee cheating behaviors into account. Based on the conservation of resource theory, this study takes the influence of external working situation into the influencing factors of workplace cheating behavior, which greatly enriches and expands the research in the field of workplace cheating behavior.

Secondly, in terms of research perspective, from the perspective of workplace relations, this study explores the influence of employees' performing W_ICTs for the first time, which enriches the research paradigm for these behaviors. Previous studies on W_ICTs were mostly limited to the perspective of employees themselves. Since this behavior involves the interaction between colleagues, it will be helpful for organizations to have a more comprehensive understanding of the impact of W_ICTs on employees from the perspective of workplace relations.

At the same time, based on the complexity of the new working context of W_ICTs, this study also considers the mediating mechanism of the positive and negative aspects between the two mediating variables which are perceived job control and workplace ostracism, between the W_ICTs, emotional exhaustion and workplace cheating behavior. Emotional exhaustion is used to bridge the relationship between the perceived job control, workplace ostracism and workplace cheating behavior. In this study, through the chain mediation model, we deeply reveal the influence mechanism of W_ICTs on workplace cheating behavior, and expand the boundaries of the existing research on W_ICTs and workplace cheating behavior.

6.2 Practical Implications

First of all, organizations should pay attention to the negative impact of W_ICTs. Although employees' W_ICTs may ostensibly bring more flexibility to work and more time for employees to engage in the organization, this study confirms that W_ICTs can also lead to negative effects such as employees' emotional exhaustion and cheating behaviors by causing workplace ostracism. Organizations should pay attention to these behaviors at all times. Attention should also be paid to the employees' working status.

Secondly, the organization should pay attention to the supplement of employees' psychological resources. According to the conservation of resource theory, employees' emotional exhaustion and workplace cheating are mainly due to the lack of internal resources. Therefore, organizations should actively meet employees' needs for resource acquisition and preservation. Organizations should also provide timely supplements to employees in terms of material, conditions and energy resources, such as setting clear promotion paths and salary promotion standards, or provide effective training in staff skills and knowledge.

Finally, organizations should choose effective communication tools and set up complete rules and regulations. According to the research model in this paper, to reduce the cheating behaviors caused by W_ICTs, organizations need to reduce the intrusion caused by W_ICTs on others, which

requires organizations to select appropriate communication tools for the communication among employees. On the other hand, organizations should also set up complete rules and regulations, make use of employees' behavior norms to correct and guide employees' cheating behaviors in time, and make clear rewards and punishments according to the rules and regulations.

References

[1] Mitchell M S, Baer M D, Ambrose M L, et al. Cheating under pressure: A self-protection model of workplace cheating behavior. Journal of Applied Psychology, 2018, 103(1): 54.

[2] Hillebrandt A, Barclay L J. How COVID-19 can promote workplace cheating behavior via employee anxiety and self-interest-And how prosocial messages may overcome this effect. Journal of Organizational Behavior, 2022.

[3] Mitchell M S, Greenbaum R L, Vogel R M, et al. Can you handle the pressure? The effect of performance pressure on stress appraisals, self-regulation, and behavior. Academy of Management Journal, 2019, 62(2): 531-552.

[4] Farasat M, Azam A, Hassan H. Supervisor bottom-line mentality, workaholism, and workplace cheating behavior: the moderating effect of employee entitlement. Ethics & Behavior, 2021, 31(8): 589-603.

[5] Kelly G R, Danziger James N. On cyberslacking: workplace status and personal internet use at work. Cyberpsychology & behavior: the impact of the Internet, multimedia and virtual reality on behavior and society, 2008, 11(3): 287-92.

[6] Richardson K M, Thompson C A. High tech tethers and work-family conflict: A conservation of resources approach. Engineering Management Research, 2012, 1: 29-43.

[7] Fujimoto Y, Ferdous A S, Sekiguchi T, et al. The effect of mobile technology usage on work engagement and emotional exhaustion in Japan. Journal of Business Research, 2016, 69(9): 3315-3323.

[8] Ragsdale J M, Hoover C S. Cell phones during nonwork time: A source of job demands and resources. Computers in Human Behavior, 2016, 57: 54-60.

[9] Wang H, Liu P, Zhao X, Li A, Xiao C. Work-Related Use of Information and Communication Technologies After Hours (W_ICTs) and Work-Family Conflict: A Moderated Mediation Model. SAGE Open, 2022, 12(3).

[10] Halbesleben J R B, Neveu J P, Paustian-Underdahl S C, et al. Getting to the "COR" understanding the role of resources in conservation of resources theory. Journal of management, 2014, 40(5): 1334-1364.

[11] Hobfoll S E. Conservation of resource caravans and engaged settings. Journal of occupational and organizational psychology, 2011, 84(1): 116-122.

[12] Leung L, Zhang R. Mapping ICT use at home and telecommuting practices: A perspective from work/family border theory. Telematics and Informatics, 2017, 34(1): 385-396.

[13] Duxbury L, Higgins C, Smart R, et al. Mobile technology and boundary permeability. British Journal of Management, 2014, 25(3): 570-588.

[14] Lee S, Ravichandran S. Impact of employees' job control perceptions on their work-related responses in the hospitality industry. International Journal of Contemporary Hospitality Management, 2019, 31(7), 2720-2738.

[15] Xie J, Ma H, Zhou Z E, et al. Work-related use of information and communication technologies after hours (W_ICTs) and emotional exhaustion: A mediated moderation model. Computers in Human Behavior, 2018, 79: 94-104.

[16] Meier L L, Semmer N K, Elfering A, Jacobshagen N. The double meaning of control: Three-way interactions between internal resources, job control, and stressors at work. Journal of Occupational Health Psychology, 2008, 13(3): 244-258.

[17] Becker W J, Belkin L Y, Tuskey S E, et al. Surviving remotely: How job control and loneliness during a forced shift to remote work impacted employee work behaviors and well-being. Human Resource Management, 2022.

[18] Hobfoll S E, Shirom A, Golembiewski R. Conservation of resources theory. Handbook of organizational behavior, 2000, 57-80.

[19] Hobfoll S E, Halbesleben J, Neveu J P, et al. Conservation of resources in the organizational context: The reality of resources and their consequences. Annual review of organizational psychology and organizational behavior, 2018, 5: 103-128.

[20] Poetz L, Volmer J. A diary study on the moderating role of leader-member exchange on the relationship between job characteristics, job satisfaction, and emotional exhaustion. Frontiers in Psychology, 2022, 13: 812103.

[21] Konze A K, Rivkin W, Schmidt K H. Is job control a double-edged sword? A cross-lagged panel study on the interplay of quantitative workload, emotional dissonance, and job control on emotional exhaustion. International journal of environmental research and public health, 2017, 14(12): 1608.

[22] Capraro V, Cococcioni G. Rethinking spontaneous giving: Extreme time pressure and ego-depletion favor self-regarding reactions. Scientific reports, 2016, 6(1): 1-10.

[23] Elbæk C T, Mitkidis P, Aarøe L, et al. Honestly hungry: Acute hunger does not increase unethical economic behaviour. Journal of Experimental Social Psychology, 2022, 101: 104312.

[24] DeSteno D, Duong F, Lim D, Kates S. The Grateful Don't Cheat: Gratitude as a Fount of Virtue. Psychological Science, 2019, 30(7): 979-988.

[25] Men C, Huo W, Wang J. Who will pay for customers' fault? Workplace cheating behavior, interpersonal conflict and traditionality. Personnel Review, 2022, 51(6): 1672-1689.

[26] Haldorai K, Kim W G, Phetvaroon K, et al. Left out of the office "tribe": the influence of workplace ostracism on employee work engagement. International Journal of Contemporary Hospitality Management, 2020, 32(8): 2717-2735.

[27] Mao Y, Liu Y, Jiang C, et al. Why am I ostracized and how would I react?—A review of workplace ostracism research. Asia Pacific Journal of Management, 2018, 35(3): 745-767.

[28] Derks D, Bakker A B, Peters P, et al. Work-related smartphone use, work–family conflict and family role performance: The role of segmentation preference. Human relations, 2016, 69(5): 1045-1068.

[29] Tang Y H, Mao J H. The influence mechanism of individual perception difference and workplace exclusion on knowledge sharing behavior. Scientific Research Management, 2020, 41: 200-208.

[30] Chen Y, Li S. Relationship Between Workplace Ostracism and Unsafe Behaviors: The Mediating Effect of Psychological Detachment and Emotional Exhaustion. Psychological Reports, 2020, 123(2): 488-516.

[31] Zhu H, Lyu Y, Deng X, et al. Workplace ostracism and proactive customer service performance: A conservation of resources perspective. International Journal of Hospitality Management, 2017, 64: 62-72.

[32] Baumeister R F, Leary M R. The need to belong: Desire for interpersonal attachments as a fundamental human motivation. Interpersonal development, 2017: 57-89.

[33] Kim T T, Paek S, Choi C H, et al. Frontline service employees' customer-related social stressors, emotional exhaustion, and service recovery performance: customer orientation as a moderator. Service Business, 2012, 6(4): 503-526.

[34] Lin L, Bai Y. The Dual Spillover Spiraling Effects of Family Incivility on Workplace Interpersonal Deviance: From the Conservation of Resources Perspective. Journal of Business Ethics, 2022.

[35] Golparvar M, Jafarpour Z. Moderating role of psychological capital on the relationship between work-family conflict and emotional exhaustion. 2015.

[36] Kim H J. Hotel service providers' emotional labor: The antecedents and effects on burnout. International Journal of Hospitality Management, 2008, 27(2): 151-161.

[37] Huo W, Xu X, Li X, et al. Work-related use of information and communication technologies after-hours (W_ICTs) and employee innovation behavior: a dual-path model. Information Technology & People, 2022.

[38] Kim S, Kwon K, Wang J. Impacts of job control on overtime and stress: Cases in the United States and South Korea. The International Journal of Human Resource Management, 2022, 33(7): 1352-1376.

[39] Samma M, Zhao Y, Rasool S F, et al. Exploring the Relationship between Innovative Work Behavior, Job Anxiety, Workplace Ostracism, and Workplace Incivility: Empirical Evidence from Small and Medium Sized Enterprises (SMEs). Healthcare, 2020, 8(4): 508.

[40] Yan W, Zhou X, Song C, et al. Emotional exhaustion and unhealthy eating among COVID-19 front-line healthcare workers during recuperation: A cross-sectional study. Frontiers in Public Health, 2022, 10: 926395.