

Article

Research on Mechanism of Work Interruption on Knowledge-sharing Behavior Based on Conservation of Resources Theory

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Received: Jul 20, 2022; Accepted: Aug 20, 2022; Published: Sep 30, 2022

Abstract: Knowledge-sharing behavior has always been the focus of knowledge management. With the development of technology and the promotion of open offices, work interruption has gradually become the norm at work, and its impact on knowledge-sharing behavior is worth paying attention to. Based on the theory of resource conservation, situational experiments (study 1 and study 2) and a questionnaire survey (study 3) were conducted to explore the impact of work interruption on individual knowledge-sharing behavior. The results show that the work interruption damages the individual's psychological benefits, thus hindering the knowledge-sharing behavior, and the individual's agreeableness moderates this process. Combining work interruption and knowledge-sharing behavior, a new perspective for the study of knowledge-sharing behavior is provided to remind enterprises to pay attention to common work interruptions in practice.

Keywords: Work interruption, Knowledge-sharing behavior, Psychological benefits, Agreeableness, Conservation of resources theory

1. Introduction

In enterprises, the open office environment and the developed communication technology provide more convenience for communication between employees, but also bring unexpected troubles. When an employee concentrates on the task at hand, his/her colleague can come to him and ask for help. After helping the colleague solve the problem, the employee returns to the original work, and the leader calls him for an urgent meeting. This happens to a knowledge worker every day. Wajcman and Rose found that knowledge workers encountered an average of 85 work interruptions per day during their working days, and their working days consisted of a large number of work events, most of which (90%) lasted less than 10 minutes (Wajcman and Rose, 2011). Nowadays, work interruption has become a problem that every employee faces, and many scholars have paid research attention to the problem. Current studies have pointed out that work disruption impacts employees' performance (Nees and Fortna, 2015; Tan and Richardson, 2011; Foroughi, Malihi, and Boehm-Davis, 2016) and happiness (Fisher, 1998; Keller et al., 2020; Russell, Woods and Banks, 2017).

Knowledge-sharing behavior is the basis for maximizing the utilization of knowledge resources within an enterprise (GAGNÉ, 2009). Knowledge-sharing among employees is largely voluntary, which promotes the circulation of knowledge in a local scope. When employees share their knowledge among the whole team or even the whole enterprise, their private knowledge resources can be converted into knowledge resources of the enterprise. The maximum utilization of knowledge within the enterprise can promote the innovation of the enterprise as the innovation of the enterprise can emerge based on the existing knowledge. The wider the spread of the existing knowledge, the more likely the innovation occurs. Therefore, as an important part of knowledge management, knowledge-sharing behavior has attracted much attention from researchers. However, the most of research focused on exploring what factors motivate employees to make knowledge-sharing behavior (Gagné, 2009; Xie and Xiao, 2007; Hu and Xie, 2015) but not on factors that hinder knowledge-sharing behavior.

Based on the common work interruption in practice, we explored the negative impact of work interruption on knowledge-sharing behavior based on the Conservation of Resources Theory (COR) (Hobfoll, 1989) to link and expand the research perspective of these two fields. According to the COR, when resources are threatened or consumed, individuals will have stress and may engage in aggressive and irrational behaviors. In addition, individuals must continuously protect existing resources through resource investment to recover from resource losses more quickly. When employees experience work interruption, their attention resources, self-control resources, emotions, and well-being are all affected (Keller et al., 2020; Czerwinski et al., 2004; Qiao et al., 2021;

Puranik, Koopman and Vough, 2020). That is, their psychological interests are seriously damaged. To prevent their stress, it is needed to better protect or invest existing resources to obtain new resources. At this time, as a resource that employees can better master and utilize, knowledge needs to be shared for free. Instead, they are inclined to use their knowledge to acquire new resources. Resource losses become particularly important to use knowledge to acquire new resources. Therefore, in this study, the boundary conditions of this effect are discussed and the moderating effect of agreeableness is proposed by exploring the internal mechanism and boundary conditions of work interruption on knowledge-sharing behavior from the perspective of Conservation of Resources Theory (Fig. 1).

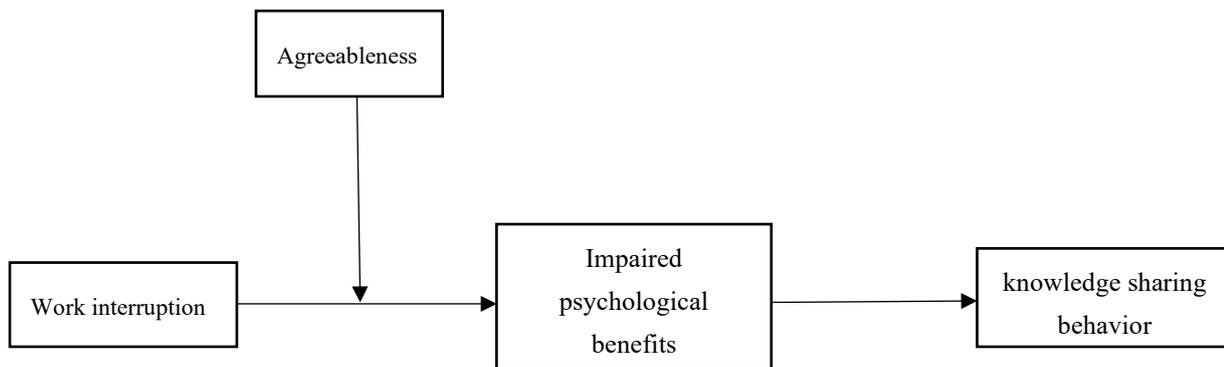


Fig. 1. Conceptual research model.

1.1. Work Interruption and Knowledge-sharing Behavior

As mentioned above, relevant research on work interruption shows that work interruption brings a variety of negative effects to individuals and damages the resources of individuals to some extent. When a resource is well protected by oneself, knowledge, especially tacit knowledge, is easily selected as the key to obtaining new resources. In this case, individuals are more willing to exchange their knowledge with others for new resources, rather than sharing the knowledge with their colleagues for free. According to the research of Li and Sun, employees share knowledge according to the leader's expectations to repay the leader's trust and support (Li and Sun, 2015). In this case, they also share their knowledge to obtain new resources. Based on the social exchange theory, Wang proposed the reciprocal relationship expected by individuals which significantly positively affected the behavior of knowledge-sharing (Wang, 2010), while the interruption of work directly destroyed the reciprocal relationship between employees. For example, completing a new task that has little relevance to the current task makes the current task more prone to errors (Eatchel, Kramer, and Drews, 2012). Therefore, we proposed the following hypothesis.

H1: Work interruption is negatively correlated with knowledge-sharing behavior.

1.2. Mediating Effect of Impaired Psychological Benefits

Psychological benefits involve an individual sense of achievement. When work interruption occurs, employees need to take time to deal with the interruption before returning to their original work, which hinders the realization of their task objectives and makes it difficult for them to achieve their goals for work objectives. Even if employees take delayed handling measures during the disruption, it is necessary to activate their sense of responsibility but the use of such resources with the responsibility to deal with work disruption damages their happiness (Russell, Woods, and Banks, 2017). After the happiness of employees is damaged, they tend to have negative emotions such as depression. Unwritten rules in the workplace do not allow them to show too many negative emotions in front of others, forcing employees to modify their emotional expression (Grandey, 2000), which further harms the psychological benefits of employees. Finally, negative situations such as work pressure caused by work interruption seriously affect the mental health of employees, and burnout caused by work pressure worsens the physical and mental state of employees (Liu, 2020), and damages their psychological health.

As an organizational citizenship behavior, the knowledge-sharing behavior is mainly decided by employees themselves, and the psychological state of employees plays an important role in this behavior. Employees tend to engage in knowledge-sharing behavior when they think they can derive self-worth from it. From a more utilitarian perspective, when an individual expects to gain respect and praise from colleagues, the individual tends to exchange knowledge (Liao and Yuan, 2009). Hansen and Avital also pointed out that the influence of reputation prompted employees to share knowledge (Hansen and Avital, 2005). In summary, when

employees' psychological satisfaction or expectation is satisfied, that is, when their psychological benefits are realized, they are more willing to share their knowledge.

However, work interruption obstructs the completion of the current task and the sense of achievement after the completion of the task. Thus, the time to obtain a sense of achievement is delayed. Under such circumstances, it is difficult for employees to cope with the loss of resources caused by work interruption and they urgently need to obtain new resources. Sharing their knowledge further damages their resources. At the same time, the damage to psychological benefits is the loss of their resources. In the process of dealing with the interruption, they pay a part of their resources without return. These two factors strengthen employees' self-protection mechanism not sharing knowledge. Therefore, we proposed the following hypothesis.

H2: Impaired psychological benefit plays a mediating role in the relationship between work interruption and knowledge-sharing behavior.

H2a: Work interruption has a positive impact on impaired psychological benefits.

H2b: In the context of work interruption, the impaired psychological benefit hurts knowledge-sharing behavior.

1.3. Moderating Effect of Agreeableness

From the perspective of working memory capacity, Foroughi et al. believed that everyone has a different memory capacity for tasks, and working memory capacity plays a certain role in regulating the relationship between work interruption and task efficiency (Foroughi, Malihi, and Boehm-Davis, 2016). They indicated that personal traits such as working memory capacity play a certain role in regulating the impact of work interruption. In addition, scholars have pointed out that in the study of work interruption, individual characteristics play an important moderating role in the relationship between work interruption and other variables (Puranik, Koopman, and Vough, 2020). Agreeableness, as one of the Big Five personality traits, can also regulate the relationship between work interruption and impaired psychological benefits. At the same time, Wei et al.'s research showed that agreeableness can regulate the influence between conflict and work performance, and work interruption is a low-intensity conflict (Wei et al., 2020). Thus, agreeableness can also play a moderating role in this case.

People with high amenities are willing to help others from the perspective of others, while people with low amenities attach more importance to the gains and losses of their interests (Li, 2020). For the damage of psychological benefits brought by work interruption, people with high agreeableness tend to ignore the damage and pay more attention to others, showing a weaker positive impact of work interruption on the damage. Therefore, the higher the agreeableness, the weaker the positive effect of work interruption on psychological benefit damage, and the lower the agreeableness, the stronger the positive effect of work interruption on impaired psychological benefits. Therefore, we proposed the following hypothesis.

H3: Agreeableness negatively moderates the relationship between work interruption and impaired psychological benefits.

1.4. Research Overview

We adopted a variety of research designs and multi-source methods to test the research model, including two situational experiments (study 1 and 2) and a questionnaire survey (study 3). This panoramic research method is to more effectively confirm the proposed research hypothesis and establish the internal and external validity of the research (Chen et al., 2020).

2. Study 1: Effect of Work Interruption on Knowledge-sharing Behavior

2.1. Research Methods

2.1.1. Research Sample

In study 1, data from the participants were collected by online and offline questionnaires. 52 responses were collected from the group with work interruption and 50 responses from the group without work interruption. Among all the subjects, 55.9% were female, and the group was relatively young, mostly between the ages of 18 and 40, accounting for 92.2% of the total participants. The number of people who worked for more than 5 years accounted for 55.9%, and the education level was mostly at bachelor's degrees, accounting for 74.5%.

2.1.2. Experimental Design and Procedure

Participants were randomly assigned to two groups with or without work interruption, and both groups were told the meaning of work interruption before starting the experiment. The work interruption group was asked to recall a time when they experienced a work interruption during work. To better help subjects recall, we showed examples to help participants recall similar situations. The examples were from situations that happened frequently. After the participants recalled, they completed the questionnaire.

Before filling out, two questions must be answered: "I accurately understand the meaning of work interruption" (1 represents "yes", 2 represents "no"), and "I have experienced work interruption in the recalled events" (1 represents "yes", 2 represents "no"). In this study, the value of experiencing work interruption was 1, and the value of not experiencing work interruption was 0.

2.1.3. Measuring Tools

All the scales adopted in this study were scored on the Richter 5-point scale, with 1 indicating very inconsistent and 5 indicating very consistent. The measurement scale of knowledge-sharing behavior was designed by referring to the scale of Bock et al., 2005 and Cabrera, Collins and Salgado, 2006, which contained six items in total including "I am willing to tell my colleagues what I gain in the process of completing a task". The reliability coefficient of the scale was 0.896.

2.2. Analysis Tool

SPSS was used to conduct an independent sample T-test on the sample data of work interruption and knowledge-sharing behavior. The test results showed that the knowledge-sharing behavior score of the group with work interruption (mean (M) = 3.55, standard deviation (SD) = 0.96) was significantly lower than that of the group without work interruption (M = 4.33, SD = 0.27) at $t(100) = -5.532$, significance (two-tailed) $p < 0.001$. The analysis results of study 1 showed that the score of knowledge-sharing behavior of the group with work interruption was lower than that of the group without work interruption. There was a negative correlation between work interruption and knowledge-sharing behavior, which supported H1.

3. Study 2: Moderating Effect of Agreeableness

3.1. Research Methods

3.1.1. Research Sample

In study 2, participants' responses were collected via online questionnaires including 122 from the work interruption group and 126 from the non-work interruption group. 58.5% of the participants were female, and the participants were relatively young, mostly 18–40 years old accounting for 91.5%. The number of people who worked for more than 5 years accounted for 49.2%, and the education level was mostly at bachelor's degrees, accounting for 75.0%.

3.1.2. Experimental Design and Research Procedures

In study 2, by setting specific situations, the experimental and control groups were asked to read relevant materials and answer the questionnaire according to the situations written in the materials to test the adjustment effect. The process is shown in Table 1. To verify whether the situation was understood appropriately by the participants, the test of the situation problem was added after the end of the situation description. the participants were asked whether they suffered work interruption in the situation (1 represents "yes", 2 represents "no").

3.1.3. Measuring Tools

The scale of impaired psychological benefit was compiled concerning the job concentration scale of Li and Yan (2007) and the psychological benefit correlation scale of Dong (2014). 5 items related to impaired psychological benefit were selected and adapted appropriately according to the situation such as "I feel stressed in the above situation", and the reliability of the scale was 0.940. The agreeableness scale was a part of the Big Five personality scale compiled by Meng et al. (2021), which contained four items, such as "I can feel the feelings of others at work", and the reliability of the scale was 0.775.

Table 1. Situational simulation experiment design in study 2.

Group	A: Experimental Group	B: Control Group
Step 1	The subjects were randomly assigned to the experimental group and the control group, and corresponding questionnaires were distributed.	
Step 2	<p>1. Describe the context of this study:</p> <p>Suppose you work for an Internet company. The company is a startup, mainly operating the business during regular hours, aiming to let customers enjoy the quality of dating service. Since its establishment, the company has experienced rapid growth, and its sales and market share have steadily increased every year. This is due to the clear corporate management structure and frequent internal information exchange. You have only been working in the company for one year and have a basic understanding of the company. You are responsible for the development of new markets and the maintenance of existing channels. Your salary includes performance pay. Now the leadership of the company requires you to expand new business. You need to conduct detailed market research and user research on the new market and determine the feasibility and give a long-term operating plan. The project is important and needs to be completed within one week. The leader promises that you will be promoted after the successful completion of the project. This is also a rare opportunity and challenge for you.</p> <p>2. The participants were asked to truthfully answer the questionnaire according to the set situation.</p>	
Step 3	In the process of completing a project, your colleagues frequently ask you for help with their work that is not relevant to your current project, and you stop what you are doing several times to help them. You waste time in helping them, resulting in a passing performance in each meeting, and you fail to deliver your complete plan as scheduled.	In completing the project, you work smoothly, colleagues do not ask you for help, and no one interrupts your progress. The project is carried out according to your previous plan, so you finally complete the project perfectly, and your plan is recognized by the leader and finally implemented.
Step 4	Fill in the questionnaire including basic information, experimental situation judgment, and relevant scales.	
Step 5	Data analysis was conducted after the questionnaire was collected	

3.2. Hypothesis Test

3.2.1. Correlation Analysis

The correlation analysis results of key variables in this study are shown in Table 2. The data show that the mean value of psychological damage, agreeableness, and work interruption is 2.932, 1.912, and 0.492, respectively. Table 2 shows that there is a significant correlation between work interruption and psychological benefit impairment. To further explore the logical relationship between the main variables, SPSS was used to verify the moderating effect of agreeableness.

Table 2. Correlation of variables in study 2.

	M	SD	IT	PB	AG	Sex	Age	Work Experience	Education Background
IT	0.492	0.501	1						
PB	2.932	1.375	0.927**	1					
AG	1.912	0.701	0.077	0.088	1				
Sex	1.585	0.494	-0.071	-0.021	-0.135*	1			
Age	2.254	0.884	-0.036	-0.058	-0.130*	0.055	1		
Work Experience	3.137	1.033	-0.021	-0.048	-0.193**	0.065	0.791**	1	
Education background	3.024	0.590	-0.095	-0.083	0.140*	-0.240**	-0.245**	-0.0338**	1

** indicates $p < 0.01$; * indicates $p < 0.05$

IT = work interruption, PB = impaired psychological benefits, AG = agreeableness

3.2.2. Analysis of the Moderating Effect of Agreeableness

Model 7 in the SPSS plug-in was used to verify the moderating effect of agreeableness on work interruption and psychological damage. The data analysis results are shown in Table 3. When psychological benefit impairment was the dependent variable, the coefficient of work interruption was 2.542 at a significant level of 0.001, indicating that work interruption had a significant positive impact on psychological benefit impairment. At the same time, the interaction terms between work interruption and agreeableness had a significant effect on psychological benefit impairment ($\beta = -0.288$, $p < 0.01$, CI [-0.475, -0.101]), indicating that agreeableness played a negative moderating role in the effect of work interruption on psychological benefit impairment.

Table 3. Moderating effect of agreeableness on the mediating effect of impaired psychological benefits in study 2.

Variable	Impaired Psychological Benefits		
	Coefficient	LLCI	ULCI
constant	2.900***	2.326	3.474
IT	2.542***	2.412	2.671
Sex	0.111	-0.026	0.249
Age	-0.006	-0.127	0.114
Work experience	-0.021	-0.126	0.085
Education background	-0.019	-0.138	0.099
Agreeableness	0.060	-0.036	0.156
interaction	-0.288**	-0.475	-0.101
Model Summary	R ²	F	
	0.866	222.190***	

Note : * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The process was used to output the effect of work interruption on psychological damage when the agreeableness was at different levels, as shown in Table 4. When agreeableness was at a low value, the effect was 2.733 at a significant level of 0.001 and CI [2.556, 2.909]. When agreeableness was at the high value, the effect was 2.340 at a significant level of 0.001 and CI [2.153, 2.527]. This indicates that the positive effect of work interruption on psychological damage was weakened under high agreeableness. A simple slope diagram was drawn as shown in Fig. 2. The slope at high agreeableness is significantly lower than that at low agreeableness, indicating again that high agreeableness reduces the positive impact of work interruption on psychological damage. Hypothesis H3 has been verified.

Table 4. Moderating effect of agreeableness in study 2.

Conditional effects of the focal predictor at values of the moderator(s):						
	Effect	Standard Error	<i>t</i>	<i>p</i>	Confidence Level	
					Low	High
M - 1SD	2.733	0.090	30.515	0.000	2.556	2.909
M	2.542	0.066	38.668	0.000	2.412	2.671
M + 1SD	2.340	0.095	24.658	0.000	2.153	2.527

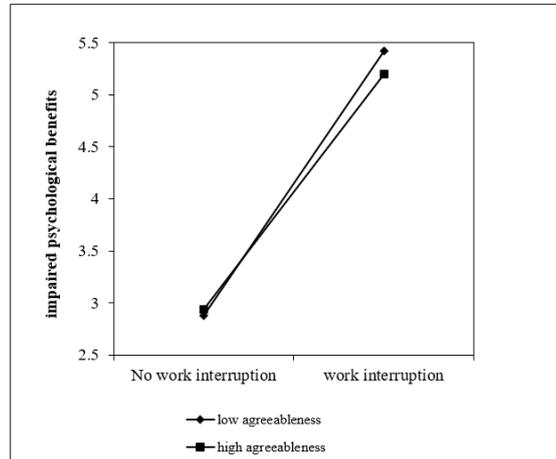


Fig. 2. Moderating effect of agreeableness on the relationship between work interruption and psychological benefit impairment in study 2.

4. Study 3: Full Model Questionnaire Survey

4.1. Research Methods

4.1.1. Respondents and Procedures

In Study 3, a questionnaire survey was conducted online and offline. After eliminating invalid questionnaires containing continuous, missed, and wrong answers, a total of 241 questionnaires were collected. Among all the **respondents**, 53.5% were female. They were generally young, mostly aged 18-40 years old, accounting for 92.9%. The number of people who worked for more than 5 years accounted for 44%, the education level was mostly at bachelor's degrees, accounting for 74.3%, and most of the respondents worked in private enterprises, accounting for 56.4%.

4.1.2. Measurement Tools

The work interruption was assessed by referring to Lin, Kain, and Fritz (2013) and Fletcher, Potter, and Telford, (2018). 3 questions were asked including such as "I can work for a long time without being interrupted", and the scale reliability was 0.892. Knowledge-sharing behavior was assessed by referring to Bock et al. (2005) and Bock and Kim (2002), including five items such as "I am willing to try to share my knowledge more effectively", and the scale reliability was 0.876. Impaired psychological benefits and agreeableness were assessed with the same questionnaire for studies 1 and 2 with scale reliability of 0.850 and 0.825, respectively.

4.2. Research Results

4.2.1. Correlation Analysis

Correlation analysis was conducted on key variables such as work interruption, agreeableness, psychological benefit impairment, and knowledge-sharing behavior (Table 5). The mean value of work interruption, psychological benefit damage, agreeableness, and knowledge-sharing behavior was 3.368, 2.843, 4.089, and 3.676, respectively. Work interruption was significantly correlated with psychological benefit impairment and knowledge-sharing behavior, and psychological benefit impairment was significantly correlated with knowledge-sharing behavior. SPSS was used to verify the mediating effect of impaired psychological benefits and the moderating effect of agreeableness.

Table 5. Correlation of study 3 variables

	M	D	IT	PB	AG	KS	Sex	Age	Work experience	Education background	Type of Enterprise
IT	3.368	1.124	1								
PB	2.843	1.002	0.489**	1							
AG	4.089	0.756	-0.20	-0.237**	1						
KS	3.676	0.836	-0.386**	-0.548**	0.534**	1					
Sex	1.535	0.500	0.014	0.006	0.038	0.011	1				
Age	2.095	0.896	0.042	-0.139*	-0.031	0.167**	-0.031	1			
Work experience	3.046	1.001	-0.50	-0.165*	-0.118	0.165*	-0.124	0.766**	1		
Education background	2.930	0.584	0.035	0.088	-0.075	-0.069	-0.099	-0.075	-0.009	1	
Type of Enterprise	3.394	1.024	-0.017	-0.061	-0.027	0.003	0.026	0.027	0.169**	0.172**	1

** indicates $p < 0.01$

* indicates $p < 0.05$

IT = work interruption, PB = impaired psychological benefits, AG = agreeableness, KS = knowledge-sharing behavior

4.2.2. Analysis of the Mediating Effect of Psychological Benefit Impairment

The regression analysis results of Process Model 4 are shown in Table 6. With work interruption as the independent variable, the direct effect of work interruption on knowledge-sharing behavior after the introduction of psychological benefit damage was -0.127 at a significant level of 0.01. The Bootstrap interval test showed that the 95% confidence interval did not include 0, indicating that the direct effect of work interruption on knowledge-sharing behavior was significant. In addition, in the indirect effect, the relationship between work interruption → psychological benefit damage → knowledge-sharing behavior passed the significance test. The indirect effect value was -0.164 at a significant level of 0.001. The Bootstrap interval test showed that the confidence interval did not contain 0. In summary, psychological benefit impairment had a significant mediating effect in the process of work interruption affecting knowledge-sharing behavior, and hypothesis H2 is supported.

Table 6. Test results of mediating effect in study 3.

Path	Direct Effect				Indirect Effect			
	Effect	Standard Error	Confidence Level		Effect	BootSE	Confidence Level	
			Low	High			Low	High
IT→PB→KS	-0.127**	0.046	-0.218	-0.036	-0.164***	0.035	-0.240	-0.100

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

4.2.3. Analysis of the Moderating Effect of Agreeableness

Model 7 in the SPSS plug-in Process was used to verify the moderating effect of agreeableness on work interruption and psychological damage. The data analysis results are shown in Table 7. When psychological benefit impairment was taken as the dependent variable, the coefficient of work interruption was 0.427 at a significant level of 0.001, indicating that work interruption had a significant positive impact on psychological benefit impairment. At the same time, the interaction between work interruption and agreeableness had a significant effect on psychological benefit impairment ($\beta = -0.121$, $p < 0.05$, CI [-0.248, -0.004]), indicating that agreeableness played a negative moderating role in the effect of work interruption on psychological benefit impairment.

Table 7. Moderating effect of agreeableness on the mediating effect of impaired psychological benefits in study 3.

Variable	Impaired Psychological Benefits			Knowledge-sharing Behavior		
	Coefficient	Confidence Level		Coefficient	Confidence Level	
		Low	High		Low	High
Constant	3.155***	2.369	3.942	4.581***	3.854	5.307
IT	0.427***	0.332	0.521	-0.127**	-0.218	-0.036
Sex	0.025	-0.191	0.242	0.035	-0.145	0.215
Age	-0.119	-0.309	0.071	0.099	-0.060	0.257
Work experience	-0.072	-0.245	0.105	0.008	-0.136	0.152
Education background	-0.094	-0.092	0.280	-0.012	-0.167	0.144
Agreeableness	-0.049	-0.156	0.059	-0.026	-0.116	0.065
Interaction	-0.287***	-0.431	-0.143			
Cconstant	-0.121*	-0.238	-0.004			
Impaired psychological Benefits				-0.375***	-0.478	-0.272
Model Summary	R ²	F		R ²	F	
	0.339	14.883***		0.332	16.532***	

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The effect of work interruption on psychological damage was observed with agreeableness at different levels as shown in Table 8. When agreeableness was at a low value, the effect was 0.518 at a significant level of 0.001 and CI [0.390, 0.646]. When agreeableness was at a high value, the effect was 0.335 at a significant level of 0.001 and CI [0.204, 0.466]. The positive effect of work interruption on psychological benefits weakened under high agreeableness. A simple slope diagram is shown in Fig. 3. The slope at high agreeableness is significantly lower than that at low agreeableness, indicating that high agreeableness reduces the positive impact of work interruption on psychological damage. Thus, hypothesis H3 is supported.

Table 8. Moderating effect of agreeableness in study 3.

Conditional effects of the focal predictor at values of the moderator(s):						
	Effect	Standard Error	<i>t</i>	<i>p</i>	Confidence Level	
					Low	High
M - 1SD	0.518	0.065	7.956	0.000	0.390	0.646
M	0.427	0.048	8.869	0.000	0.332	0.521
M + 1SD	0.335	0.067	5.036	0.000	0.204	0.466

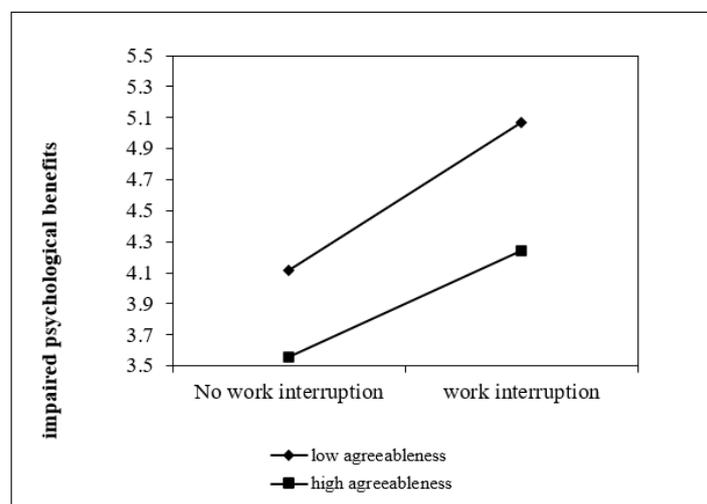


Fig. 3. Moderating effect of agreeableness on the relationship between work interruption and psychological benefit impairment in study 3.

5. Conclusion

Based on the Conservation of Resources Theory, we explored the relationship between work interruption on knowledge-sharing behavior, the mediating role of psychological benefit impairment, and the moderating role of agreeableness on the impact of work interruption. The research results showed that work interruption obstructed employees' knowledge-sharing behavior by damaging their psychological benefits, and the agreeableness of employees played a moderating role in this process. High agreeableness reduced the positive relationship between work interruption and impaired psychological benefits. The higher agreeableness was, the lower the strength of this positive relationship was.

Different from previous studies, we did not study knowledge-sharing behavior from the perspective of social exchange theory and self-determination theory, but explored the role of work interruption on knowledge-sharing behavior through COR, and confirmed the mediating role of psychological benefit impairment between work interruption and knowledge-sharing behavior. The result fills the gap of studies on hindrance factors of knowledge-sharing behavior. Current research has focused more on the short-term impact such as the current task performance after work interruption and the happiness of employees after work interruption, and the impact of the moment. Although it is pointed out that it is necessary to pay attention to the impact of work interruption on employees' long-term happiness (Keller et al., 2020), there is not much research in this field. Therefore, the knowledge-sharing behavior of employees who are interrupted by work was focused on in this research taking impaired psychological benefits as the mediating variable. Based on the existing research in the field of work interruption, the psychological influence was explored at the individual behavior level to broaden the boundary and perspective for the research in the field of work interruption. We verified the

weakening effect of agreeableness on the psychological damage caused by work interruption and introduced the boundary condition of individual personality traits. The results showed that agreeableness reduced the psychological damage caused by work interruption and the negative impact of work interruption on knowledge-sharing behavior. They not only validated the previous view that personality plays an important moderating role in work interruption but also deepens the research on the influencing factors of knowledge-sharing behavior.

Work interruption has become a common phenomenon in enterprises, which is difficult to be eliminated. At the same time, it is closely related to employees' work efficiency, emotion, memory, concentration, and happiness. Therefore, the research on work interruption has important practical significance. However, there is not much research on work interruption in China, and enterprises do not think that such frequent work interruptions have a significant impact. Knowledge-sharing behavior has a profound impact on the internal information exchange and innovation of enterprises. Meanwhile, the obstruction of knowledge-sharing also affects the knowledge management of enterprises, which is unfavorable to the development competitiveness of enterprises. Thus, we focused on the impact of work interruption on knowledge-sharing behavior to remind enterprises to pay attention to the negative impact of work interruption and the existence of this phenomenon to reduce work interruption, improve the work efficiency of employees, and reduce the obstacles of knowledge-sharing within enterprises.

Based on the perspective of COR, the mechanism of the influence of work interruption on knowledge-sharing behavior was investigated in this research. It was found that work interruption negatively affected knowledge-sharing behavior through the path of psychological benefit damage, showing the importance of individual psychological benefit on knowledge-sharing behavior. Enterprises need to pay attention to the psychological benefits of employees, not just the economic benefits of employees. In addition, enterprises also need to improve employees' emotional management ability and concentration ability to reduce the damage to employees' psychological benefits, which is regarded as a solution to reduce the negative impact of work interruption when it is difficult to control work interruption.

This study result verified the negative effects of agreeableness on the negative effects of work interruption. Employees with high agreeableness need to be more tolerant of others, more considerate of others, and not care too much about personal gains and losses in work. This trait reduces the damage of psychological benefits brought by work interruption and helps to regulate the relationship between work interruption and psychological benefits. Therefore, enterprises need to incorporate such personality traits into the scope of investigation when recruiting and assigning employees, and assign people with such traits to positions where work interruption is difficult to avoid and knowledge-sharing is important such as research and development positions in the enterprise. In this way, the frequency of work interruption can be reduced with less cost, and knowledge-sharing within the enterprise will not be hindered.

Author Contributions: Conceptualization, Yue-Zhang Qiu; methodology, Yue-Zhang Qiu; software, Yue-Zhang Qiu; validation, Yue-Zhang Qiu; formal analysis, Yue-Zhang Qiu; investigation, Yue-Zhang Qiu; resources, Yue-Zhang Qiu; data curation, Yue-Zhang Qiu and Xiao Pan; writing—original draft preparation, Yue-Zhang Qiu; writing—review and editing, Xiao-Kang Zhao and Xiao Pan; visualization, Yue-Zhang Qiu; supervision, Xiao-Kang Zhao. All authors have read and agreed to the published version of the manuscript.

Funding: This research did not receive external funding.

Conflicts of Interest: The authors declare no conflict of interest.

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