Use of Information and Communication Technologies after Hours (W_ICTs) and Emotional Exhaustion: Based on the Impression Management Perspective

Yifan Fan, Peiyao Hu, Jianpeng Zheng, Siyuan Yan, Weiwei Huo*

School of SHU-UTS SILC Business, Shanghai University, Shanghai 201899, China

Abstract

Along with the continuous improvement of communication technology, using work-related technologies to communicate during non-work time has become a common phenomenon in numerous working areas which is called work-related use of information and communication technologies after hours (W_ICTs). However, the underneath reasons of W_ICTs and what are its potential consequences are worth exploring and investigating. Based on conservation of resources theory, this study discusses the relationship between impression management motivation and emotional exhaustion with the mediating role of voluntary W_ICTs as well as the moderating mechanism of leadership feedback. Through analyzing 442 sample data collected via questionnaires, this research concludes: (1)Impression management motivation is negatively related to employee emotional exhaustion and positively affects voluntary W_ICTs; (2)Voluntary W_ICTs works as the mediator between impression management motivation and emotional exhaustion; (3)Leadership feedback positively moderates the relationship between voluntary W_ICTs and emotional exhaustion. The higher the leadership feedback is, the stronger the negative relationship between voluntary W_ICTs and emotional exhaustion is. This research provides a new sight into the antecedents of W_ICTs and contributes to a further understanding of its potential impacts. The findings of this research suggest how organizations should promote the employees to conduct voluntarily W_ICTs to achieve maximum benefits for the whole organization.

Keywords

1. Introduction

As internet technologies develop rapidly and increasing new work requirements appear in enterprises, work-related use of information and communication technologies after hours (W_ICTs) has turned into a new characteristic of considerable careers [1]. This can be explained that many corporations require employees to conduct a series of work such as holding meetings and implementing tasks arranged by their superiors or colleagues outside the specified working hours, which is called work connectivity behavior during non-work time and firstly proposed by Richardson and Benbunan-Fich [2]. Along with this trend, increasing employees are willing to proactively have working connectivity behavior after hours whereas some still resist W_ICTs during their non-working time.

Previous researches have demonstrated that W_ICTs can be generally divided into two different types, which are the voluntary one and the passive one [3]. For instance, it is believed that passive W_ICTs required by supervisors increases the health problem risks of employees while voluntary W_ICTs motivated by employee themselves has a positive role in promoting their

health condition [4, 5]. To further investigate this behavior, scholars have examined and proved more negative impacts of W_ICTs including increased work-family conflict [6], impaired health [5] and reduced individuals' well-being [6, 7] as well as negative work-related outcomes such as emotional exhaustion [1] and burnout [8]. Meanwhile, current studies have also found potential positive effects of W_ICTs on individuals' job satisfaction [9] , work engagement [10, 11], job flexibility [12] and job control [13]. Nevertheless, these existing researches mainly explore the negative effects of W_ICTs and there is a lack of studies to conduct more investigations into the positive effects of voluntary W_ICTs [14].

Additionally, few studies have explored the antecedent of voluntary W_ICTs and its possible influence mechanism. On this condition, impression management, referring to the process in which individuals influences and controls others in interactions to form the desired impression in a certain way, can be accompanied with the motivation to being viewed positively by others in the organization and avoiding negative opinions [15, 16]. It is essential for interpersonal communication and may facilitate the occurrence of voluntary W_ICTs in the workplace. In the organization, the development of employees, including promotion, welfare and training opportunities, could be largely related to the views of leaders towards them. Therefore, some employees are willing to take the initiative to work in non-working hours to win a positive impression and attitude of leaders to them. Admittedly, domestic researches on impression management mainly focuses on the construction of strategies, however, there is a lack of researches on the connotation, motivation and influencing mechanism of impression management [15]. In this respect, it is of great significance to explore the influence mechanism of impression management motivation on voluntary W_ICT and its subsequent consequences.

In line with this rationale, this study investigates the positive impact of voluntary W_ICTs on emotional exhaustion on the premise of impression management motivation as well as the potential moderating role of leadership feedback in the relationship between these two variables. It can be illustrated that impression management motivation is able to stimulate voluntary work connection in non-working time and then indirectly inhibit emotional exhaustion from the perspective of conservation of resources theory. In fact, since emotional exhaustion is a vital variable of job connectivity, it has received massive attention from scholars [17, 18, 19]. Although some studies have investigated the relationship between W_ICTs and emotional exhaustion, the findings have been considered to be inconsistent [7, 20]. Hence, this research can not only extend the research scope of W_ICTs but also further enrich and complement the theoretical exploration of emotional exhaustion. It also contributes to the suggestions about how to achieve maximum organization benefits by facilitate the employees to voluntarily utilize work-related technologies and communication after hours.

2. Literature Review and Research Hypotheses

2.1. Impression Management and Emotional Exhaustion

Impression management is also known as self-presentation [21], a way to exchange information between one and others through personal behavior and activities, which is motivated by shaping, refining and maintaining an individual's image in others eyes [22]. It has been found that impression management motivation can be divided into two types: One is the acquired impression management motivation for building or enhancing popular images. The other is the defensive impression management motivation trying to avoid creating negative images [23]. Based on the researches of Tetlock and Manstead and Leary and Kowalski [23, 24], Morrison and Bies (1991) indicate that the motivation of employees' impression management mainly derives the purpose of improving the individual's social image and can be provoked by personal emotional state or the external environment such as perceived opportunities to create favorable impressions [16].

It is noted that employees with impression management motivation induced by a positive psychological state will regard this behavior as a beneficial risk-taking behavior in their mind and then this leads to the secretion of adrenaline to perceive excitement and happiness [16]. At the same time, employees with acquired impression management motivation have the impetus of acquiring positive perceptions [23], which can trigger positive emotions including pleasure and excitement. In this respect, impression management motivations has a positive impact on individual's emotions and assists to avoid emotional exhausion. Maslach and Jackson (1981) have defined that emotional exhaustion is the feeling of physical and mental exhaustion and energy exhaustion experienced by employees under the pressure of work for a long time, which is a kind of psychological fatigue [25]. In the state of emotional exhaustion, employees will feel anxiety, tension, depression and other related negative emotions, feeling that their energy has been exhausted and being prone to lack dedication and commitment to work [26]. Due to the positive effect of impression management motivations on emotions, emotional exhaustion may be restrained to some extent.

Although many scholars in the existing literature research use emotional exhaustion as a mediator to study the relevant mediating effect [27], it can provide a new view to examine the role of emotional exhaustion as a result variable and investigate the influence of impression management. Above all, it is assumed that impression management motivation is negatively related to employee emotional exhaustion.

H1: Impression management motivation is negatively related to employee emotional exhaustion.

2.2. The Mediation Role of Voluntary W_ICTs

Studies have found that employees with impression management motivation will constantly seek opportunities to do some things which may not be completely helpful to themselves but beneficial for others [28] as they know that they can get a favorable impression and then get more benefits despite of the cost. Bunce and West (2010) also states that Individuals' cognitive flexibility and tolerance will be enhanced by positive emotions from impression management and this will encourage them to break through certain restrictions in a specific situation as well as generate more motivation to act [29]. As a result, pushed forward by the motivation of impression management, employees tend to pay attention to their impressions in the eyes of others in daily life and seek for the possibility of improvement in work. Accordingly, employees will take the initiative to use information and communication technologies after hours, making efforts to become the model of employees by proactive work connection during non-working hours. It can be inferred that employees' volunteer W_ICTs behavior will be continuously triggered by impression management motivation.

Based on conservation of resources (COR) theory, individuals own the tendency to strive for acquiring, maintaining, nurturing, and protecting the resources they cherish and value, aiming at satisfying the basic need of human beings to adapt to the environment and maintain survival, which is the core of COR theory [30, 31, 32]. According to the initial definition of Hobfoll [31], resources are the valuable things in humans' consideration and the ways which can help them to obtain these resources. Halbesleben et al. (2014) explain resources as "the things that individuals have perceived and recognized to help them achieve their goals" from the perspective of motivations of gaining and saving resources [30]. In this respect, the positive and advantageous image in leaders' eyes and subsequent benefits brought from impression management can be regarded as valuable resources for employees in the future development. To acquire and maintain these resources, employee are motivated to have working connectivity behavior after hours and this also interpret the positive relationship between impression management motivation and voluntary W_ICTs. Therefore, it is assumed that impression management motivation positively affect voluntary W_ICTs.

H2: Impression management motivation positively affects voluntary W_ICTs.

Moreover, COR theory also emphasizes that actual resource loss or even the potential threat of resource loss is able to trigger individual tension and stress [31, 32]. Previous researches have highlighted that W_ICTs can result in the outflow of resources such as emotion resources, which means the reduced resources using for leisure and recovery after hours and would lead to an inability to timely and effectively supplement the resources needed for daily life, thereby causing tension, emotional exhaustion and risk of health problems [7, 14]. For instance, it is believed that W_ICTs is a special form of work demand consuming individual resources [33]. However, what should be noted is that voluntary W_ICTs motivated by impression management happens out of employees' initiative instead of the external pressure and requirements, thus the feelings of tension, depression and other related negative emotions could be reduced and emotional exhaustion could be inhibited. In other words, employees will largely improve their emotional depletion threshold value and less prone to emotional exhaustion. At the same time, the inflow of resources in the process including increased sense of work control and flexibility [34] and closer interpersonal contact with colleagues and leaders [35] are conducive to the further access of its subsequent resources and avoid emotional exhaustion. This means that voluntary W_ICTs is negatively related to emotional exhaustion.

Therefore, impression management motivation improves the level of incentive and the willpower of employees to have voluntary work connection after hours, which indirectly decrease the loss of emotion resources and also the emotional exhaustion. From that, it is assumed that voluntary W_ICTs works as the mediator between impression management and emotional exhaustion.

H3: Voluntary W_ICTs works as the mediator between impression management motivation and emotional exhaustion.

2.3. The Moderation Role of Leadership Feedback

Leadership feedback refers to evaluative information from leaders, which can be divided into positive feedback and negative feedback [36]. Among them, the positive feedback means the approval or supportive evaluation information from leaders while the negative one is defined as the negative or unsupported assessment information from their supervisors. In fact, the leader is not only an important object for employees to conduct impression management [37] but also an important source of employees' information feedback [38]. Previous studies have shown that, leadership feedback has a certain influence on individual performance [39], employees' task performance [40], employees' behavior [41], employees' emotional response and subsequent behavior [42].

According to COR theory, in the context of resource loss, resource supplement is considered to be particularly important and more valuable to individuals. At this point, injecting new resources into those with already fewer resources is significant for them to achieve resource supplementation, protect against resource losses and relieve tension and stress [32]. From this respect, the positive leadership feedback towards employees' active working connectivity as a supplemental resource will continuously mitigate employee perception to the resource loss in the process of W_ICTs and then reduce the emotion exhaustion, which strengthens the negative relationship between voluntary W_ICTs and emotional exhaustion. The positive and encouraging feedback from leaders also satisfies the impression management motivation for employees, so as to further support the occurrence of impression management and its subsequent consequences [43]. To sum up, this study puts forward the following hypotheses: leadership feedback positively moderates voluntary W_ICTs and emotional exhaustion. The higher the leadership feedback is, the stronger the negative relationship between voluntary W_ICTs and emotional exhaustion is.

H4: leadership feedback positively moderates voluntary W_ICTs and emotional exhaustion. The higher the leadership feedback is, the stronger the negative relationship between voluntary W_ICTs and emotional exhaustion is.

As the theoretical model shown in Figure 1, it should also be mentioned that this study divides variables into two levels, which are within-individual level and inter-individual level. Within-individual level ignores the external influence of groups or organizations focusing on individual themselves while inter-individual level consider the control variables and organization effects on individuals.
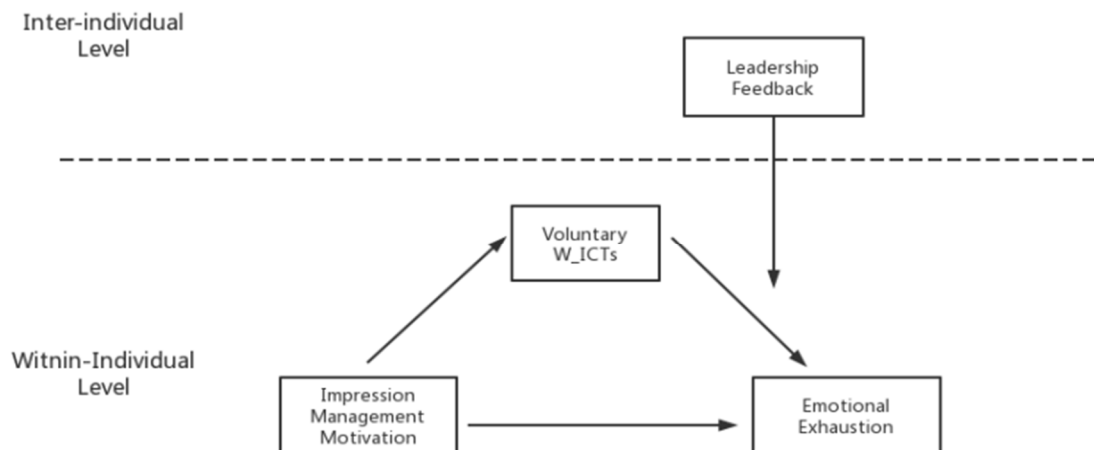

Figure 1. Theoretical model

3. Methods

3.1. Sample and Procedure

This study obtained data by the form of questionnaire survey, which was last for 10 days to see the changes of the respondents during the certain period. Employees with internship or formal work experience were selected as the participants to find out why the behavior of voluntary W_ICTs may occur. Additionally, it was ensured that the participants should have the experience of voluntary W_ICTs, especially during the 10 days of the questionnaire. The results showed that 60 new employees enrolled in this research, with 78.34% of them have worked for less than one year. Those questionnaires that can not show specified commuting time or with more than 20% unfilled answers in 10 days were removed. After removing invalid questionnaires and filtering the mechanical answers, 45 groups of valid questionnaires were finally obtained. A total of number of 442 valid questionnaires were collected with a effective recovery rate of 75%.

3.2. Questionnaire Design

This research adopts the empirical sampling method, so the measurement of variables should be continuously repeated at the same time point during a certain period. Therefore, the questionnaire also contains real-time changing questions and fixed ones. The changing ones are used to record the variables that may change at different point of time. Fixed questions refer to the basic information of employees that does not change with the time change during the measurement cycle, and these questions are control variables. Except control variables, a total number of 27 questions were selected, covering four variables: impression management motivation, voluntary W_ICTs, leadership feedback and emotional exhaustion.

In addition, the types of questionnaires are divided into three categories. The first one is measured in the first morning, covering the basic characteristics of employees, and scales of impression management and leadership feedback. The second one is measured at each night, including all the 27 questions. The third one measured in the rest mornings, including the scales of the impression management and leadership feedback sections.

3.3. Measures

In order to ensure the reliability of the research results, this paper uses mature scales designed by former scholars to measure the variables of impression management motivation, voluntary W_ICTs, leadership feedback, and emotional exhaustion. Except for control variables like age and gender, other responses were reflected in a 5-point Likert scale where "1 = strongly disagree, and 5 = strongly agree". In addition, this research revised the scales after learning the foreign literature of the same variables in diversified cultural backgrounds.

(1)Impression management motivation. Adopting the scale of Bolino et al. [44], 10 items were selected and two of the representative items were "To make a good impression on colleagues, I will actively participate in work meetings during non-work hours", and "When I realize that I can't handle work in working hours, I will find some reasons to explain to the leader". In this research, the internal consistency coefficient of this scale, Cronbach's α is 0.933.

(2)Voluntary W_ICTs. According to former scale and recent definition of voluntary and passive W_ICTs, two items were selected and a representative one was "To make a good impression on colleagues, I will actively participate in work meetings after working hours". In this research, the internal consistency coefficient of this scale, Cronbach's α is 0.95.

(3)Leadership feedback. Adopting the scale of Jaworski et al. [45], 10 items were selected and one of the representative items was "When I do not actively participate in meetings after working hours because of the fear of losing face, the leaders will point it out to me". In this research, the internal consistency coefficient of this scale, Cronbach's α is 0.91.

(4)Emotional exhaustion. Adopting from the former scale about emotional exhaustion, 5 items were selected and one of the representative items was "I always work too hard, and I am overwhelmed by my work". In this research, the internal consistency coefficient of this scale, Cronbach's α is 0.955.

(5)Control variables. Eight variables including gender, age, emotional status, education level, type of work, job level, working years and whether has specified commuting hours, were controlled to remove the effects of the statistical variables.

4. Results

The paper used SPSS 21.0 to analyze the collected data, and tested the relation between impression management motivation and emotional exhaustion as well as the mediator role of voluntary W_ICTs. This paper also analyzed the relation between W_ICTs and emotional exhaustion under the moderator of leadership feedback.

4.1. Sample and Procedure

In order to specifically investigate the behaviors of new employees after entering an organization and improve the socialization theory of new employee organizations, the main participants of this survey were new employees. The results of demographic variables, also viewed as control variables were shown in Table 1.

Table 1. Demographic profile (N=60)

Variables	Aspects	Frequency	Percentage
Gender	Male	22	36.67%
	Female	38	63.33%
Age	Below 25	45	75.00%
	25-35	12	20.00%
	35-45	2	3.33%
	45-55	1	1.67%
Emotional status	Single	35	58.33%
	Be in relation	22	36.67%
	Married	3	5.00%
Education level	High school or below	1	1.67%
	Junior College and Graduate	55	91.67%
	Master or above	4	6.67%
Type of work	Finance	6	10.00%
	Management	11	18.33%
	Administration	17	28.33%
	Marketing	9	15.00%
	Technology	6	10.00%
	Professional (consultant, teacher, lawyer, reporter etc.)	6	10.00%
	Others	5	8.33%
Job level	Normal staff	51	85.00%
	Junior-Level Manager	6	10.00%
	Middle-Level Manager	3	5.00%
Working years	Less than 0.5 year	13	21.67%
	0.5-1 year	34	56.67%
	1-3 years	4	6.67%
	3-5 years	5	8.33%
	More than 5 years	4	6.67%
Whether has specified commuting hours	Yes	52	86.67%
	No	8	13.33%

4.2. Confirmatory Factor Analysis

This study examined the reliability of four variables including impression management motivation, voluntary W_ICTs, leadership feedback, and emotional exhaustion. The results showed that the Cronbach's Alpha value of all variables is greater than 0.9, indicating that the scale has a good confidence level.

To evaluate the distinctiveness of the key variables, including impression management motivation, voluntary W_ICTs, leadership feedback, and emotional exhaustion, this research adopted AMOS 22.0 to implement the confirmatory factor analyses. As the results showed in Table 2, four-factor model offered the most satisfactory fit to the data ($x2/df = 2.1$, RMSEA =

0.05, TLI = 0.91, CFI = 0.95, SRMR = 0.05), as it met the requirement of x2/df is less than 3, RMSEA is less than 0.1, RMR is less than 0.05, and CFI is more than 0.9.

Table 2. Results of confirmatory factor analysis

Models	factor	x^2/df	GFI	RMSEA	RMR	CFI	NFI
Four-factor model	IM, WICT, LF, EE	2.613	0.949	0.06	0.031	0.983	0.973
Three-factor model	IM, WICT+LF, EE	20.46	0.68	0.21	0.218	0.783	0.775
Two-factor model	IM, WICT+LF+EE	39.671	0.537	0.296	0.281	0.554	0.549
One-factor model	IM+WICT+LF+EE	51.943	0.469	0.339	0.306	0.403	0.4

Noted: IM, WICT, LF, EE separately stands for impression management motivation, voluntary W_ICTs, leadership feedback, and emotional exhaustion.

4.3. Descriptive Statistics

Table 3. Means, standard deviations, and correlations for study variables

Variables		Mean	SD	1	2	3	4	5	6	7	8	9
Within-individual level	1. WICT	2.624	1.151	1								
	2. IM	3.306	0.963	0.265**	1							
	3. EE	3.443	1.101	-0.415**	-0.302**	1						
Inter-individual level	1. LF	3.163	0.792	1								
	2. Age	1.27	0.614	-0.034	1							
	3. Gender	1.61	0.487	-0.025	0.034	1						
	4. Emotional Status	1.53	0.669	0.026	0.596**	0.028	1					
	5. Education	2.02	0.299	-0.037	0.132**	-0.324**	0.037	1				
	6. Type of job	4.2	2.462	-0.014	0.221**	-0.300**	0.112*	0.288**	1			
	7. Job level	3.71	0.621	0.035	-0.739**	0.251**	-0.507**	-0.116*	-0.244**	1		
	8. Working years	2.02	1.281	0.043	0.825**	-0.152**	0.600**	0.119*	0.240**	-0.662**	1	
	9. Fixed Commuting	1.14	0.352	-0.036	0.095*	-0.264**	-0.013	0.103*	0.171**	-0.354**	0.130**	1

Noted: IM, WICT, LF, EE separately stands for impression management motivation, voluntary W_ICTs, leadership feedback, and emotional exhaustion. In addition, within-individual level N=442, and inter-individual level N=45.

The mean, standard difference and correlation coefficient of all the variables are presented in Table 3, and these variables are separated into two levels, which are within-individual level and inter-individual level. According to the results, it can be inferred that impression management

motivation promotes the occurrence of voluntary W_ICTs; emotional exhaustion showed obvious negative correlations with voluntary W_ICTs and impression management, which provided the basic conditions for further research.

4.4. Main Effect and Mediation Analysis

In Figure 2, I represent for MEE = B0 + B1*(MIM) + e1; II represents for MWICT = B3 + B4*(MIM) + e2; III represents for MEE = B5 + B6*(MWICT) + B7*(MIM) + e3.
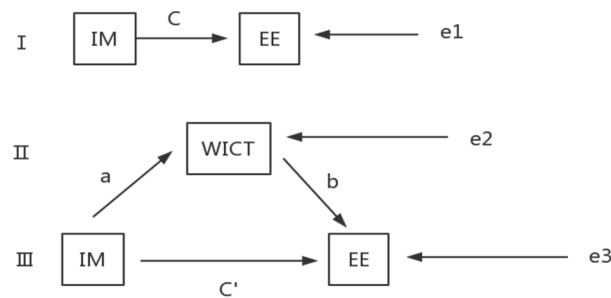

Figure 2. Mediation analysis

This study adopted the method of Wen et al. [46] to test the mediator role of voluntary W_ICTs. Firstly, the negative effect of IM on EE is proved to be significant as the P value is less than 0.005. Then the positive effect of IM on WICT is proved to be significant as the P value is less than 0.005. At last, after introduced the mediator of WICT, the negative effect of IM on EE is proved to be significant as the P value is less than 0.005. As a result, H1, H2 and H3 are supported. All the results are shown in table 4.

Table 4. Results of mediation analysis

Letter	Slope	value	P
a	B4	0.3176	0.000
b	B6	-0.2416	0.000
c	B1	-0.1824	0.000
c'	B7	-0.258	0.001

4.5. ICC Tests

The study applies HLM 6.08 data analysis software for multi-level linear analysis. Before that, it is needed to use null model to test the three variables in within-individual level, which are impression management motivation, voluntary W_ICTs and emotional exhaustion, to acquire their ICC (1) and ICC (2) values. These values can help to understand whether the data are appropriate to conduct multi-level linear analysis. Results are shown in Table 5 that the ICC (1) values of voluntary W_ICTs, impression management motivation and emotional exhaustion are all greater than 0.25 and their ICC (2) values are greater than 0.75. As a result, the next hypothesis analysis can be performed.

Table 5. Results of ICC tests

	ICC(1)	ICC(2)
WICT	0.694967947	0.954
IM	0.797072458	0.973
EE	0.786708047	0.971

4.6. Moderation Analysis

In order to test the moderating effect of leadership feedback, this research uses HLM 6.08 software to put voluntary W_ICTs and emotional exhaustion as variables in within-individual level, and put leadership feedback and eight control variables at inter-individual level.

As can be found from the significance map of regulation effect shown by HLM, the interaction coefficient of leadership feedback and voluntary W_ICTs is -0.228862 and its P value is 0.000, which shows that the interaction effect is significant. Therefore, the leadership feedback received by employees plays a moderating role between voluntary W_ICTs and emotional exhaustion, that is, H4 certification. At the same time, since the interaction coefficient is negative value, it is preliminarily speculated that leadership feedback as a moderator will promote the negative relationship between voluntary W_ICTs and emotional exhaustion or inhibit the positive relationship between voluntary W_ICTs and emotional exhaustion. To determine which the adjustment mode is, the corresponding figure 3 is the regulation effect inspection diagram drawn according to the significance map of regulation effect made by HLM.
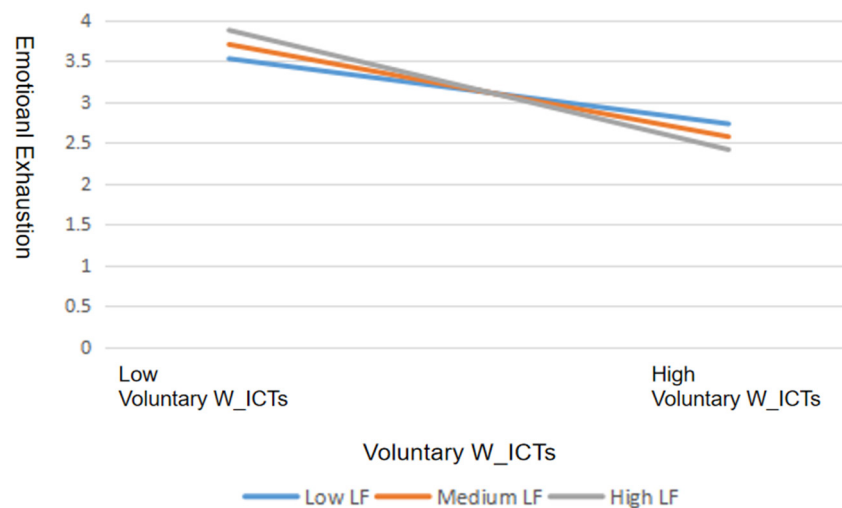

Figure 3. Regulation effect inspection diagram

From the figure, leadership feedback is proved to act as a moderating variable to promote the negative relationship between voluntary W_ICTs and emotional exhaustion. At the same time, the stronger the leadership feedback is, the stronger the moderating effect on the negative relationship between the two variables is.

5. Conclusion

With the prevalent of work-related use of information and communication technologies after hours, it is of great significance to explore how to maximize the benefits of this behavior in organizations. To further investigate it, starting from the antecedents of W_ICTs, this paper illustrates that impression management motivation can stimulate voluntary work-connectivity in non-working time and then indirectly inhibit emotional exhaustion based on the conservation of resources theory. Specific conclusions are as follows: (1) Impression management motivation is negatively related to employee emotional exhaustion and positively affects voluntary W_ICTs; (2) Voluntary W_ICTs works as the mediator between impression management motivation and emotional exhaustion; (3) leadership feedback positively moderates voluntary W_ICTs and emotional exhaustion. The higher the leadership feedback is, the stronger the negative relationship between voluntary W_ICTs and emotional exhaustion is.

These findings reveal the occurrence mechanism of voluntary W_ICTs and how to alleviate the subsequent results of employee emotional exhaustion.

6. General Discussion

6.1. Theoretical Contribution

Current researches mainly use voluntary W-ICTs as the independent variable to find the possible consequences caused by this behavior such as decreased innovation ability and psychological detachment of employees. Nevertheless, existing researches fail to investigate in detail how this behavior of active work connection occurs during non-working hours and why employees choose this behavior occupying their rest time. This study examines the influence mechanism of impression management on W_ICTs, improving the theoretical system of individual voluntary W-ICTs behavior with certain theoretical value. it provides a new academic sight from the perspective of impression management motivation and expands the exploration of voluntary work-connectivity behavior during non-working hours.

Secondly, previous literature usually considers W_ICTs from the perspective of enterprises as a whole, but few studies are conducted from the perspective of individuals. Taking social psychology as the breakthrough point, this research selects impression management motivation to explain the reasons for the emergence of voluntary W_ICTs and its effect mechanism on emotional exhaustion of employees. It reveals the effect of impression management motivation on voluntary W_ICTs and further explains the relationship between proactive work connection after hours and emotional exhaustion, which enriches and complements the theoretical system of individual emotional exhaustion.

Moreover, the main research object of this research is the new employees. As a special group of enterprise, new employees have their particular psychological characteristics. Therefore, the present research probes into the characteristics of the new employee groups from the perspective of new employees' organizational socialization.

6.2. Practical Contribution

This study verifies that one antecedent variable of voluntary W_ICTs is impression management motivation, which means impression management motivation can stimulate employees' work connectivity behavior during non-working hours. Depending on these findings, in enterprises, the manager can select candidates with high impression management motivation at the recruitment stage as well as apply the impact mechanism mentioned to motivate employees to actively complete tasks outside the work requirements to continuously improve the performance the company. Specifically, after the entry of new employees with high impression management motivation, the enterprise could integrate employees into the organization and help them to have a sense of responsibility to the company through several activities and cultivation, then promoting their tendency to improve individual impression.

Additionally, this research reveals that leadership feedback enhances the hindering effect of voluntary work-related use of technologies after hours on emotional exhaustion of employees, which exactly corresponds to the current workplace demand. Due to the influx of the new generation of employees, the new generation of work values have shifted towards self-orientation and equality, different from the traditional workplace. Leaders or managers should give sufficient and timely feedback to employees, so that their motivation of impression management can be satisfied and the blocking effect of voluntary W_ICTs on employees' emotional exhaustion is able to appear. This also assists employees to adjust the state of mind and mood and present better output performance.

6.3. Limitations and Future Research

First, impression management motivation, voluntary W_ICTs and leadership feedback in this study were regarded as three uni-dimensional variables. However, in fact, impression management motivation can also be divided into two dimensional variables of acquired impression management motivation and defensive impression management motivation as the paper mentions before. In the same way, feedback from leaders can be divided into positive feedback and negative feedback according to whether the leader offers positive one or negative one. Therefore, a more accurate and complex model still needs to be explored with a large number of empirical studies to prove whether there is a complex relationship between two bi-dimensional variables.

Secondly, the measure scale of this study has some limitations. Although the scales applied in this paper are all commonly used in previous researches, they are mainly from foreign countries. Therefore, due to the differences in ethnic cultures as well as the different styles of domestic and foreign enterprises, there are some doubts about the applicability of the scales in the scenes. For instance, Chinese people pay more attention to others' views on them and seek the respectability compared with foreign countries, thus they are more likely to have a significant motivation for Impression Management. In spite of appropriate adjustments being made, the measure scales still need to be improved. In the future, it is suggested to combine the research with the specific culture backgrounds.

Thirdly, another limitation lies in the sample size and type in the research as this study only includes 45 effective participants and only 442 sample data. Specifically, when the sample size is inadequate, related errors are more likely to occur. At the same time, While the 45 sample objects own fixed working hours, it can be seen that most of them are new employees through the analysis of the age, education, working years. This means that these employees may just be exposed to work-related use of information and communication technologies in non-working time and the relevant influence is unapparent in workplace. Furthermore, in order to leave a positive impression, they are inclined to manage their impression and take the initiative to complete tasks while those with longer working hours may have a diverse attitude. As a result, further studies are expected to expand the investigation in wider and larger sample.

Finally, the method of collecting data in this study requires valid and multiple batches of sample responses and last for 10 days, divided into two times in the morning and in the evening. However, there exists doubts about whether the measuring method is reliable because the long-time span possibly results in the loss of a large number of samples. To improve this, scholars should pay attention to the effectiveness and efficiency of data collection and explore more appropriate research methods.

Acknowledgments

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