ISSN: 2688-9323

The Influence Mechanism of Electronic Performance Monitoring on Employee Innovative Behavior

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Abstract

Purpose-The purpose of this research is to examine the effect of electronic performance monitoring (EPM) on employees' innovative behavior. Drawing on self-determination theory (SDT), we investigate the mediating effect of employees' obsessive work passion and the moderating effect of self-monitoring personality in an attempt to answer the question of why, how, and when EPM can affect employees' innovative behavior. Design/methodology/approach-Data was collected from 418 employees working in technology and manufacturing companies located in Southwest and East China. For analytical purposes, this study conducted multilevel path analysis. Findings-Results suggest that EPM has a significant positive impact on employees' obsessive work passion, which is negatively related to employees' innovative behavior. Additionally, employees' self-monitoring personnality moderates the effect of EPM on employees' obsessive work passion and the indirect effect of EPM on employees' innovative behavior via employees' obsessive work passion. Practical implications-Organizations need to use EPM appropriately in order to avoid developing obsessive work passions that can lead to a decrease in employees' innovative behavior. Leaders are sugguested to pay attention to employees' self-monitoring personality and nurture employees to develop a high self-monitoring personality to adapt to the using of EPM. Originality/value-This study examines the association between EPM and employees' innovative behavior. Based on SDT, this research uncovers the mediating role of employees' obsessive work passion in the impact of EPM on employees' innovative behavior and identifies employees' self-monitoring personality as a boundary condition in which EPM works.

Keywords

Electronic Performance Monitoring; Innovative Behavior; Obsessive Work Passion; Self-monitoring Personality; Self-determination Theory.

1. Introduction

With the rapid development of the digital economy, more and more enterprises have begun their digital transformation. Advanced digital technology not only helps enterprises reduce costs and increase efficiency, but also gives rise to a large number of new practices in the field of human resource management. As an effective tool for organizations' digital management, electronic performance monitoring (EPM) is being applied to employee management. EPM refers to using existing technologies to observe, record, and analyze information directly or indirectly related to employee job performance[43]. As EPM is gradually integrated into our working lives, the research value of it is increasing[24] and scholars call for more studies on the consequences of EPM[21,38]..

Previous studies have shown that EPM has an impact on employees' job stress[24,38], perception of privacy invasion[6], and job satisfaction[21]. However, some scholars still point out that the impacts of EPM on jobs and employees remain unclear and have great potential to explore on its consequences[39]. Therefore, it is crucial to explore the impact of EPM on various factors,

ISSN: 2688-9323

especially on those factors affecting the survival and development of the enterprise, such as employees' innovative behavior. Employees' innovative behavior as an extra-role behavior that can sustainably empower the development of the enterprise and help the enterprise to occupy a leading position in the industry, is influenced by the work environment[23]. Consequently, this study aims to explore the connection between EPM, an environmental factor, and employees' innovation behavior by examining the mediating and moderating mechanisms involved in this relationship.

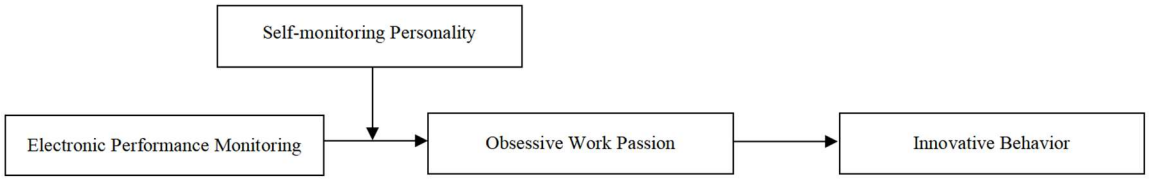
Work passion plays a pivotal role in the association between job characteristics and employee behaviors[57]. According to self-determination theory (SDT), the external factors affect the internalization of an individual's extrinsic motivation[10] and then work passions are divided into two types according to distinct internalization process[45]. EPM, as a supervisory tool aimed at improving employee performance[41], has real-time and continuous monitoring functions that can restrict employee work behaviors and put employees in a controlled environment. In such an environment, employees have to devote themselves to work to improve their performance for their salary and promotion, which means that they tend to develop an obsessive work passion emanating from a controlled internalization[46]. In addition, the performance feedback function of EPM[32] not only increases the workload of employees but also enhances the intensity of competition among employees[36]. These external factors leads them to work harder for the purpose of maintaining their current status and advantage, resulting in an obsessive work passion. Obsessive work passion refers to individuals who are compelled to put in work under internal or external pressure[45]. Employees with obsessive work passion do not really like their work[34], so they will not perform well at work[7,49]. In such case, they only seek to complete their work, rather than demonstrating extra-role behaviors to innovate. Meanwhile, obsessive work passion is often accompanied by individual's negative emotions[18]. Under the influence of negative emotions, the creative thinking of employees is inhibited, which affects the implementation of individual's innovative activities[18]. Therefore, we investigate the possible mediating effects of obsessive work passion in the relationship between EPM and employees' innovative behavior.

Furthermore, it is unlikely that employees with different personality traits will react similarly when faced with EPM. Therefore, personality traits should be considered as an important factor in exploring the impact of EPM. In the collectivist and relationship-oriented Chinese context, self-monitoring personality is highly expressive as a stable personality trait[16], which reflects the individual's sensitivity to situational cues and the tendency and ability to change self-presentation through behavior[42]. That is to say, employees with different levels of self-monitoring have different sensitivities to EPM and their motivations for work behavior are different. Specifically, high self-monitoring employees are sensitive to environmental information and are able to actively adjust their behavior according to situational information [15], showing their good environmental adaptability[25,50]. Employees with good environmental adaptability are not only able to quickly integrate into the environment where EPM is used, but also able to attain the information conveyed by EPM that the organization attaches great importance to the employees' job performance. Based on this information[28], high self-monitors can make full use of this information and actively work with the motivation of improving their status[33] and reputation, thus leading to the emergence of obsessive work passion. This notion is also supported by SDT[22], as personality traits can affect an individual's motivation to work[14]. Therefore, we consider self-monitoring personality as a crucial boundary condition of the aforementioned mechanism.

In summary, we construct a moderated mediation model to explore the impact of EPM on employees' innovative behavior (see Figure 1). Our study makes three significant theoretical contributions. First, we contribute to the EPM literature by extending its outcomes. In addition to past research mainly showing that EPM can impact employees' organizational citizenship

ISSN: 2688-9323

behaviors[4,21] and counterproductive behaviors[20,30], we answer the call to enrich the outcomes of EPM by demonstrating employees innovative behavior as its consequence[41]. Second, we enrich the mediating mechanisms of EPM. Previous studies on the mediating mechanisms of EPM are mainly based on social exchange theory[53], agency theory[4,31], and the theory of planned behavior[1], but few studies have explored the results of EPM on employees from the motivational mechanism. According to SDT, we explore how obsessive work passion mediates the impact of EPM, providing a new perspective on mediating mechanisms for EPM. Third, we respond to the call to enrich the boundary conditions in which EPM works[39]. Previously, the selection of boundary conditions for EPM has mainly focused on gender[37], work empowerment[30], performance target and feedback [41], and few scholars have explored the moderating role of employees' personality traits. Adopting SDT, this study shows the significance of employees' self-monitoring personality in an organization in which EPM exists. By focusing on employees' self-monitoring personality, our study provides a new direction for the study of boundary conditions of EPM. Figure 1 depicts our theoretical model.



Source(s): Created by authors

Figure 1. The theoretical model

2. Theory and Hypotheses

2.1. Electronic Performance Monitoring and Innovative Behavior

SDT has stated that external environments have an impact on employees' motivation[34]. EPM, known as "digital Talyorism"[32], creating a continuous monitoring environment for employees, undermines employees' willingness to innovate in the organization. First, close monitoring not only diminishes employees' work autonomy but also places them with an unseen manager, thus creating a stressful environment in an organization. When employees feel pressure from the organization and aware their work restricted by their leaders, they tend to develop negative emotions which in turn reduce their incentives to innovate and discourage them from taking risks to innovate[51]. Second, as a kind of control supervision, EPM supervising employees' work behavior not only sends a message to employees that the organization does not trust them[41], but also restricts communication between employees and reduces the frequency of their social interaction in the organization[3]. Organizational mistrust of employees and restrictions on their social interactions can lead to negative work attitudes and reduced innovative motivation. Third, past research has demonstrated that employees faced with a controlled and supervised environment are accustomed to following their superiors' instructions[56], thus limiting the generation of innovative ideas and the implementation of innovative behaviors.

Furthermore, using EPM to collect information on employee job performance reflects the organization's emphasis on job performance, which leads employees to accomplish in-role behaviors, rather than implement extra-role behaviors (i.e., innovative behavior). On one hand, the emphasis on employees' job performance clearly conveys the message that employees' rewards and punishments are linked to performance[39]. In this case, to obtain rewards or avoid penalties, employees tend to prioritize in-role behaviors over its counterparts. Meanwhile, if employees are punished for monitoring result, they will have doubts about their abilities, thus reducing their sense of competence in innovative behavior and their willingness to innovate. On the other hand, by using various technologies to collect employees' performance

ISSN: 2688-9323

information and monitor their behavior, EPM makes employees perceive privacy invasion. The privacy invasion results in a resistance reaction and causes a negative motivational state[54], which reduces the motivation to implement innovative behavior. Consequently, we hypothesize that:

H1: EPM is negatively related to employees' innovative behavior.

2.2. The Mediating Role of Obsessive Work Passion

Based on SDT literature, EPM is likely to promote employees' ovsessive work passion. First, EPM is the use of advanced technologies to monitor employee work behavior, which creates a controlled environment in the organization. Social factors are one of the main factors affecting the internalization of motivation[46]. In a controlled environment, an organization's pursuit of performance can make the employees feel the pressure of having to engage in the work, which leads to the formation of controlled internalization. Furthermore, the work passion formed in the controlled internalization process, is known as obsessive work passion[47]. Second, EPM has the function of performance feedback[32]. This function is a pair of "invisible hand" to urge employees to work hard to achieve performance goals, increasing the workload of employees[41], and thus exacerbates the emergence of obsessive work passion. Third, when the results of EPM are used as the basis for employees' salary[23,41] and promotion, the transparency and comparability of the performance results intensify the competition among employees, causing employees to work harder to maintain or improve their competitiveness. However, since this hard working is driven by external competitive pressure rather than internal motivation, employees are more inclined to develop obsessive work passion

Furthermore, we believe that employees' obsessive work passion can reduce their innovative behavior. First, while obesessive work passion can motivate employees to be engaged in their work, this engagement is for self-protective purpose rather than voluntarily[8]. However, as an extra-role behavior, innovative behavior relies on individuals' autonomous participation [9,19]. Therefore, employees who do not have a sincere liking for their work will not proactively engage in innovative behavior. Second, employees with obsessive work passion value their status and fear failure. Thus, they would like to complete work within their responsibilities than implement risky innovative behaviors[29]. Third, obsessive work passion can prompt individual to feel negative emotions, thereby narrowing employees' creative ideas, which in turn reduces their innovation[18]. Additionally, some scholars directly demonstrated that obsessive work passion is negatively correlated with employees' innovative behavior[29].

In summary, EPM not only makes employees feel that they have to work harder, but also increases competition among employees in the organization, forming an obsessive work passion. Obsessive work passion can lead to negative emotions which inhibit employees from developing creative thinking to innovate. Moreover, given employees with obsessive work passion are involuntarily to work, they are unwilling to engage in risky extra-role behavior (i.e., innovative behavior). Therefore, we propose that:

H2: Obsessive work passion mediates the relationship between EPM and innovative behavior.

2.3. The Modetating Role of Self-monitoring Personality

SDT suggests that individual difference affect employees' intrinsic work motivation[26]. Self-monitoring personality is a personality trait that links an individual's perception of the external environment to the individual's motivation and its degree varies among individuals. Therefore, in an environment of EPM is adopted, employees with different levels of self-monitoring are differently sensitized to environmental information and develop distinct work motivations. We thus theorize employees' self-monitoring personality as a boundary condition in the relationship between EPM and their innovative behavior.

ISSN: 2688-9323

Employees with high self-monitoring personalities not only have good situational awareness [15], but also have the motivations to enhance their status and create a good image[33]. Consequently, high self-monitors are able to sharply capture the message that the organization values their job performances which is conveyed by the using of EPM, thus they tend to work proactively to achieve their goals. In addition, given high self-monitoring employees is used to change themselves to adapt to the environment[42,48], they can quickly adapt to the environment of using EPM by flexibly adjusting their work state and work rhythm. In this case, their work motivation comes from personal interest, and thus their work passion is more inclined to be formed in the autonomous internalization rather than controlled internalization, which inhibits the formation of obsessive work passion.

In contrast, employees with low self-monitoring personalities are less sensitive to environmental information than those with high self-monitoring. Therefore, low self-monitoring employees are not able to keenly capture the message transmitted by EPM and regard it as an opportunity to use. Moreover, since low self-monitoring employees tend to regard their self-attitudes and values as a guideline for their actions[50], employees perceive the supervisory function of EPM as a threat, which makes low self-monitors feel overwhelmed and controlled. Feelings of depression and control can lead employees to develop controlled motivation , leading to the emergency of employees' obsessive work passion. Additionally, compared to employees with higher self-monitoring personality, those with lower self-monitoring personality are more difficult to adapt to the requirements of the environment [12]. Consequently, in the environment of using EPM, when organization's requirement for employees' performance is contrary to their self-thought, they will generate negative emotions and attitudes towards work, exacerbating the emergence of obsessive work passion. Accordingly, we propose that:

H3: Self-monitoring personality negatively moderates the positive relationship between EPM and obsessive work passion such that this link is stronger when employee self-monitoring personality is lower.

Based on the above discussion, self-monitoring personality moderates the mediating influences of obsessive work passion between EPM and employees' innovative behavior. Specifically, when employees are low self-monitors, the relationship between EPM and employees' obsessive work passion is stronger. Because of increased obsessive work passion, employees are less likely to demonstrate innovative behavior. In contrast, high self-monitors impair the relationship between EPM and employees' obsessive work passion, thus they are willing to engage in innovative behaviors. Consequently, we hypothesize that:

H4: Self-monitoring personality moderates the indirect effect of EPM on employees' innovative behavior through obsessive work passion such that this effect is stronger when employee self-monitoring personality is lower.

3. Method

3.1. Sample and Procedures

The study's sample consisted of employees working in several technology and manufacturing companies situated in Southwest and East China. In order to minimize common method variance, this study collected data in two waves (i.e., Time 1 and Time 2), each separated by two months. At Time1, we invited employees to provide their demographic information, feeling of EPM use in the organization and their self-monitoring personality. We distributed 597 questionnaries and obtained 533 valid responses, giving a response rate of 89.28%. At Time 2, questionnaires were distributed to 533 employees in the first wave to report their obsessive work passion and innovative behavior, and 429 valid questionnaires were recovered (response rate of 80.49%). We matched the results of two waves and then excluded 11 invalid

ISSN: 2688-9323

questionnaires, thus finally obtaining 418 valid questionnaries. Among the final sample, 60% were male; the average age was 34 years; 59% of participants held a bachelor's degree; on average, they had worked in the current organization for 5.830 years.

3.2. Measures

This research was conducted in China. All of the scales in this study were adapted from well-established domestic and international scales. To ensure the accuracy of all items, we used back-translation method to translate English scales into Chinese versions[5]. The variables were rated using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

EPM. EPM was rated using a nine-item scale developed by Fusi and Feeney[13]. Sample EPM items included "Store and have access to all employee email". The Cronbach's alpha was 0.947.

Obsessive work passion. We rated obsessive work passion by using a seven-item scale which developed by Vallerand *et al*[46]. Sample obsessive work passion items included "The urge is so strong. I can't help myself from doing this activity". The Cronbach's alpha was 0.926.

Innovative behavior. Employees' innovative behavior was measured with a scale developed by Scott and Bruce[40]. This scale had six items and a sample item was "In order to realize my idea or creativity, I will try my best to obtain the necessary resources". The Cronbach's alpha was 0.950.

Self-monitoring personality. Employees rated their self-monitoring perosnality using a scale develpoed by Lennox and Wolfe[27]. This scale had thirteen items and two of which are reverse scored. Sample self-monitoring personality items included "I can usually read people's true emotions correctly through their eyes". The Cronbach's alpha was 0.870.

Control variables. Based on the previous research of innovative behavior[17], we set gender (0 = female, 1 = male), age (years), educational background (1 = high school and below, 2 = college, 3 = bachelor, 4= master's degree or above), and organizational tenure (years) as control variables.

3.3. Analytical Strategy

We used SPSS 25.0, Mplus 8.3 and R software to analyze. First, we adopted SPSS 25.0 to offer common method bias, descriptive statistics, Cronbach's alpha and correlation analysis. Second, we conducted confirmmatory factor analysis (CFA) and tested hypotheses via Mplus 8.3. Additonally, we followed a Monte Carlo method (Preacher and Selig, 2012) based on 20000 replications to construct 95% confidence intervals (CI) to examine the indirect effect and the moderated mediating effect. When the result of CI excludes "0", the effect is supported. Finally, to test the moderating effect, we calculated the the coefficient at lower (-1SD) and higher (+1SD) levels of the moderator[2].

4. Results

4.1. Common Method Bias

This study adopted Harman's single-factor test to examine common method bias. The result showed that the first factor explained 30.252% of the total variance, below the 50% benchmark[35], thus suggesting common variance bias did not exist in this research.

4.2. Confirmatory Factor Analysis

To examine the construct differentiation of the variables involved in this study, a validated factor analysis of main variables (i.e., EPM, obsessive work passion, innovative behavior and self-monitoring personality) was conducted using Mplus 8.3. As shown in Table 1, the four-factor model fitted well with the data (χ^2 = 1795.110, *df* = 554, CFI = 0.917, TLI = 0.911, RMSEA

ISSN: 2688-9323

= 0.073, SRMR = 0.040) and better than the other three models, indicating the four variables have discriminate validity.

Table 1. Result of confirmatory factor analysis

Models	χ^2	*df*	$\Delta\chi^2$ (Δdf)[a]	RMSEA	CFI	TLI	SRMR
Four-factor model (SM; IB; EPM; OWP)	1795.110	554	—	0.073	0.917	0.911	0.040
Three-factor model (SM; IB; EPM+OWP)	3781.948	557	1986.838***(3)	0.118	0.786	0.771	0.124
Two-factor model (EPM+OWP+IB; SM)	6182.198	559	4387.088***(5)	0.155	0.626	0.602	0.163
One-factor model (EPM+OWP+IB+SM)	9279.296	560	7484.186***(6)	0.193	0.420	0.384	0.234

Note(s): N = 418. EPM = electronic performance monitoring, IB = innovative behavior, SM = self-monitoring personality, OWP = obsessive work passion

χ^2 = Chi-square, *df* = degrees of freedom, RMSEA = root mean squared error of approximation, CFI = comparative fit index, TLI = Tucker-Lewis index, SRMR = standardized root mean square residual

[a] All models are compared with the four-factor model.

*p<0.05, **p<0.01, ***p<0.001.

Source(s): Created by authors

4.3. Descriptive Statistics

Table 2. Means, standard deviations, intercorrelations and internal consistencies

Variables	M	SD	1	2	3	4	5	6	7	8
1. Gender	0.600	0.490	—							
2. Age	34.470	8.750	0.101*	—						
3. Education	2.680	0.705	-0.115*	-0.233***	—					
4. Tenure	5.830	4.485	0.006	0.503***	0.001	—				
5. EPM	3.591	0.781	0.080	-0.078	0.078	-0.106*	(0.947)			
6. SM	2.210	0.647	-0.011	0.075	-0.120*	0.075	-0.057	(0.870)		
7. OWP	3.165	0.816	-0.013	-0.133**	0.014	-0.002	0.185***	-0.150**	(0.926)	
8. IB	3.423	1.139	-0.044	0.033	0.001	0.085	-0.212***	0.055	-0.209***	(0.950)

Note(s): N=418. SD= standard deviation. Cronbach's alpha are reported in parentheses along the diagonal. Gender: 0 = female, 1 = male. Education: 1 = high school and below, 2 = college, 3 = bachelor, 4= master's degree or above.

EPM = electronic performance monitoring. SM = self-monitoring personality. OWP = obsessive work passion, IB = Innovative behavior

*p<0.05, **p<0.01, ***p<0.001.

Source(s): Created by authors

The results of the descriptive statistics and correlation analysis are shown in Table 2. As shown in Table 2, EPM was positively related to obsessive work passion (r = 0.185, p < 0.001), obsessive work passion was negatively related to innovative behavior (r = -0.209, p < 0.001). These results preliminarily supported the basic hypotheses proposed in this paper.

4.4. Hypothesis Testing

The results of hypothesis testing are presented in Table 3. Hypothesis 1 predicted that EPM has a negeative impact on employees' innovative behavior. As shown in Table 3, the negative effect of EPM on employees' innovative behavior was confirmed (B = -0.248, SE = 0.070, p < 0.001), thus supporting Hypothesis 1.

Hypothesis 2 proposed that employees' obsessive work passion mediates the relationship between EPM and employees' innovative behavior. In this study, EPM facilitated employees' obsessive work passion (B = 0.196, SE = 0.050, p < 0.001) . In turn, obsessive work passion was negatively related to employees' innovative behavior (B = -0.257, SE = 0.067, p < 0.001). To further test Hypothesis 2, we used R software to calculate the 95% confidence intervals (CI)

ISSN: 2688-9323

based on 20000 resamples (Preacher and Selig, 2012). As shown in Table 4, the indirect effect of EPM on employees' innovative behavior through employees' obsessive work passion was significant (*indirect effect* = -0.050, standard error (SE) = 0.018, 95% confidence intervals (CI) = [-0.092，-0.019], excluding "0"), supporting Hypothesis 2.

Table 3. Results of hypotheses testing

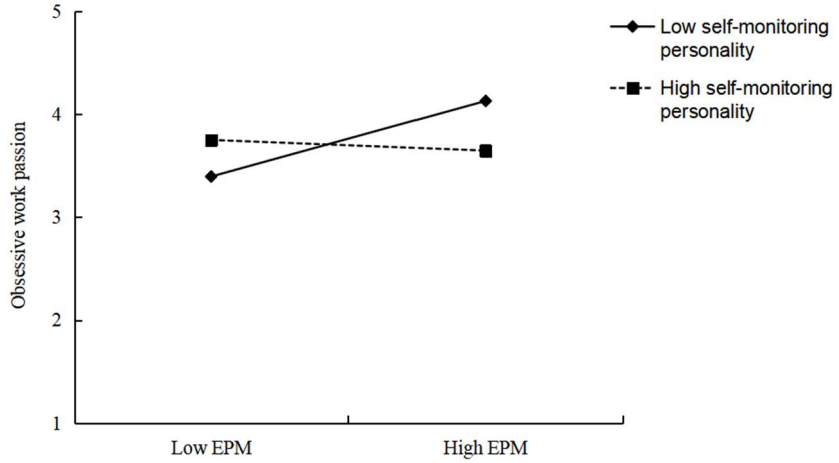
	Mediation test (Model 1)		Moderated mediation test (Model 2)	
Variables	Obsessive work passion	Innovative behavior	Obsessive work passion	Innovative behavior
(Intercept)	3.794*** (0.256)	4.342*** (0.436)	3.731*** (0.244)	4.234*** (0.441)
Control variable				
Gender	-0.025 (0.080)	-0.065 (0.111)	0.017 (0.076)	-0.084 (0.111)
Age	-0.017** (0.005)	-0.006 (0.007)	-0.015** (0.005)	-0.006 (0.007)
Education	-0.052 (0.057)	0.004 (0.079)	-0.068 (0.055)	0.008 (0.080)
Tenure	0.020* (0.010)	0.023 (0.014)	0.019* (0.010)	0.023 (0.014)
Independent variable				
EPM	0.196*** (0.050)	-0.248*** (0.070)	0.202*** (0.048)	-0.259*** (0.071)
Mediator				
Obsessive work passion		-0.257*** (0.067)		-0.219** (0.071)
Modeator				
Self-monitoring personality			-0.049 (0.061)	-0.025 (0.089)：
Interaction				
EPM × Self-monitoring personality			-0.415*** (0.068)	0.181 (0.103)

Note(s): N=418. Gender: 0 = female, 1 = male. Education: 1 = high school and below, 2 = college, 3 = bachelor, 4= master's degree or above. EPM = electronic performance monitoring.
*p<0.05, **p<0.01, ***p<0.001.
Source(s): Created by authors

Table 4. Results of mediation effect testing

Path	Effect	SE	95% CI
EPM→Obsessive work passion→Innovative behavior	-0.050**	0.018	[-0.092, -0.019]

Note(s): N=418. EPM = electronic performance monitoring.
**p<0.01
Source(s): Created by authors



Source(s):Created by authors

Figure 2. The interactive effrct of EPM and employees' self-monitoring personality

ISSN: 2688-9323

The moderating role of self-monitoring pesonality was based on the relationship between EPM and obsessive work passion. The result in Table 3 showed that the interaction term between EPM and self-monitoring personality negatively affected employees' obsessive work passion (B = -0.415, SE = 0.068, p < 0.001). We plotted simple slopes (Figure 2), which demonstrated that when employees were low self-monitors, EPM were positively related to employees' obsessive work passion (B = 0.471, SE = 0.066, p < 0.001). Conversely, if employees were high self-monitors, the positive effect of EPM on obsessive work passion was not significant (B = -0.067, SE = 0.064, p > 0.05). Therefore, Hypothesis 3 was supported.

To test Hypothesis 4, which suggested that employees' self-monitoring pesonality moderates the indirect effect of EPM on employees' innovative behavior via obsessive work passion, we examined the conditional indirect effects. As shown in Table 5, when self-monitoring personality is "low", EPM had an negative influence on employees' innovative behavior through employees' obsessive work passion (*indirect effect* = -0.103, SE = 0.036, 95% CI = [-0.181, -0.036]), whereas the indirect effect was nonsignificant when self-monitoring personality is "high" (*indirect effect* = 0.015, SE = 0.015, 95% CI = [-0.013, 0.049]). The difference between the indirect effects was significant (*difference* = 0.118, SE = 0.043， 95% CI = [0.040, 0.209]). Thus, Hypothesis 4 was supported.

Table 5. Boostrap test of moderated mediation

Path	Self-monitoring personality	Indirect effect	SE	95% CI
EPM→Obsessive work passion→Innovative behavior	+1SD	0.015	0.015	[-0.013, 0.049]
	-1SD	-0.103**	0.036	[-0.181, -0.036]
	Difference	0.118**	0.043	[0.040, 0.209]

Note(s): N=418. EPM = electronic performance monitoring. Indirect effects and bias-corrected confidences intervals (CIs) are obtained using bootstrapping method (with 20000 resamples).
*p<0.05, **p<0.01, ***p<0.001.
Source(s): Created by authors

5. Discussion

According to SDT, we consructed a moderated mediation model to explore the motivational mechanism between EPM and employees' innovative behavior. The results showed that EPM enhances employees' obsessive work passion, which in turn negatively effects their innovative behavior. Moreover, a low level of self-monitoring personality among employees amplified the positive association between EPM and obsessive work passion. Further, self-monitoring personality also moderates the indirect effect of obsessive work passion on EPM-innovative behavior relationship and the mediating effect was only significant when employees were low self-monitors.

5.1. Theoretical Implications

First, this research enriches outcome research of EPM by focusing on the relationship between EPM and employees' innovative behavior. While previous studies have explored the impact of EPM on employees' work behavior, such as organizational citizenship behavior [4,21] and counterproductive behavior[20,30], little attention has focused on the impact of EPM on employees' innovation. This study which investigated the relationship between EPM and employees' innovative behavior provides a new research perspective for the study on the effects of EPM on employees' work behaviors. By doing so, it also responds to scholars' call for

ISSN: 2688-9323

enriching research on the outcomes of EPM[41]. Moreover, existing research on EPM has focused on foreign organizaition, thus the use of Chinese employees responding to the call for taking research of EPM on diverse cultural backgrounds[24].

Second, based on SDT, this study reveals the "black box" of the relationship between EPM and employees' innovative behavior by examining employees' obsessive work passion as a potential mediator. While the prior studies on the mechanisms of EPM have mainly focused on social exchange theory[53], agency theory[4]and the theory of planned behavior[1], few studies have explored the results of EPM on employees from a motivational mechanism. Taking a different perspective from SDT, we investigated how the controlled, depressed and competitive organizational environment caused by EPM leads employees to develop obsessive work passion, thereby reducing their innovative behavior. Our study ont only enriches the mechanism of EPM, but also further expands the application scenarios and testing effectiveness of SDT. Furthermore, the finding that employees' obsessive work passion has a negative impact on their innovative behavior deepens our understanding of obsessive work passion.

Third, we expands the boundary conditions of EPM by taking self-monitoring personality as a mediating role. Previous choices of boundary conditions for EPM have focused on variables, such as gender[37], work authorization[30], and performance target and feedback[41], but few scholars have explored the mediating role of personality traits. Chinese culture is collectivist and relationship-oriented, thus people will consider the situation they are in when they demonstrate their daily behaviors and individuals with Chinese cultural background are more likely to show high self-monitoring personality[16]. Therefore, this study incorporated self-monitoring personality into the mechanism of EPM and explored the boundary condition under which EPM influences employees' innovative behavior. The results showed that self-pesonality moderates the relationship between EPM and employees' obsessive work passion and modulates the indirect effect of employees' obsessive work passion. Consequently, this study not only provides a new direction for research on the boundary conditions of EPM, but also provides a reference for subsequent research on EPM. Moreover, taking self-monitoring personality as a moderator also responds positively to scholars' call that researchers should examine how individual personality traits interact with EPM effect individual reactions[38]..

5.2. Managerial Implications

This research provides some valuble suggestions for practical management. First, organizaitions should rationally use EPM in the daily management. EPM has a negative effect on employees' innovative behavior. Therefore, organizations should pay attention to the reasonableness of monitoring intensity[32]and create a relatively autonomous space for employees to work[41]. Furthermore, organizations should adopt EPM to provide constructive feedback for employees to promote their continuous learning and development[44], thus guiding employees to form innovative ideas and implement innovative behaviors.

Second, organizations should take measures to avoid the development of employees' obsessive work passion. Employees' obsessive work passion is likely to reduce the demonstration of their innovative behavior and mediates the relationship between EPM and employees' innovative behavior. Consequently, managers are expected to diminish employees' negative perceptions of controlled environment and inhibit the generation of obsessive work passions by informing the specific behaviors being monitored[55]and increasing the transparency of EPM[44]. Moreover, organizations can also help employees form a good working mindset and inhibit the formation of obsessive work passions by providing them with psychological counseling services[49] and creating a good organizational atmosphere.

Third, organizations should recognize the negative impact of low self-monitoring personality and make efforts to reduce the existence of low self-monitoring employees in the organization. To reduce the presence of low self-monitors in the organization, companies should start with

human resource management such as recruitment and training. For instance, when recruiting employees, organizations should include employee self-monitoring personality traits in the selection criteria and take personality test to select individuals with high self-monitoring personalities to enter the company. In addition, since the level of self-monitoring personality is not static, managers can enhance employees' self-monitoring through various trainings. Finally, organizations should also pay attention to the psychological state of employees and provide regular psychological counseling to avoid a decrease of employees' self-monitoring.

5.3. Study Limitations and Recommendatios for Further Research

This research has some limitations that should be further refined in the future studies. First, since we use self-assessment to collect data which is accompanied by a social praise effect, thus affecting the accuracy of the research findings. Therefore, future research can further optimize the way of data collection through the combination of self-assessment and other assessment to collect data or directly use objective data to measure the variables. Second, this study only used the questionnaire research method to collect data, which is not comprehensive enough to understand the variable information. Afterwards, scholars is suggested to adopt various methods such as interview method and situation simulation method to carry out in-depth research. For example, Ye *et al*.[52] demonstrated that the information of innovative behavior can also be collected through interviews. Third, although we regarded employees' self-monitoring personality as a moderating variable and obsessive work passion as a mediating role, there may be additional mediating and moderating variables in the relationship between EPM and employees' innovative behavior. Based on SDT, external factors can affect an individual's psychological need fulfilment[11]. Thus, psychological need may act as a mediating role in the effect of EPM on employees' innovative behavior. Moreover, more moderators should also be explored such as employees' proactive personality. Fourth, participants in this research were recruited from oraganizaitons located in China. Thereby, future research can choose employees from organizations with different cultural backgrounds as the research participants for cross-cultural contexts.

Acknowledgments

Funding: Supported by Graduate Student Innovation Program of Chongqing University of Technology (Grant No. gzlcx20243426).

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