



Relationship between Extraversion and Employees' Innovative Behavior and Moderating Effect of Organizational Innovative Climate

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ABSTRACT

This paper aims to clarify the relationship between extraversion and employees' innovative and disclose the moderating effect of organizational innovative climate on that relationship. To this end, 300 employees were selected from various enterprises in three Chinese cities, and subjected to a questionnaire survey based on the five factor model (FFM) and 5-point Likert scale. Through statistical regressions, the author explored the effects of extraversion and organizational innovative climate have on employees' innovative behavior. Then, the organizational innovative climate was divided into five dimensions, and the feature activation theory was implemented to reveal the moderating effect of each dimension on relationship between extraversion and employees' innovation. Through the above analysis, it is concluded that extraversion has a positive effect on employees' innovative behavior; the five dimensions of organizational innovative climate all exert a positive effect on employees' innovative behavior; the resource support in organizational innovative climate has a moderating effect on the relationship between extraversion and employees' innovation. The research findings shed new light on the improvement of organizational innovative and the construction of an innovative country.

Key Words: Extraversion, Employees' Innovative Behavior, Organizational Innovative Climate, Moderating Effect

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Introduction

Recent years has seen innovation being highlighted as a national strategy of China to gain sustainable competitive advantages. One of the essential parts of this strategy lies in enterprise innovation, the synthesis of the innovative behavior of employees. Against this backdrop, both enterprises and the academia are looking for better ways to encourage the innovation among employees, thus promoting organizational innovation (Xu, 2017; Shalley *et al.*, 2004).

The innovative behavior of an employee depend heavily on his/her personality traits. The personality traits mirror the stable intrinsic psychological features of individuals, and bear on their thinking patterns, feelings and time-invariant

behaviors. There are many methods to describe personality traits, such as the Sixteen Personality Factor Questionnaire (16PF) (Bahner, 2018), the Three Dimensional Personality (Li *et al.*, 2014) and the five factor model (FFM) (Canale *et al.*, 2017). Among them, the FFM, a.k.a. the Big Five personality traits, marks a major breakthrough in the research on personality traits (Jin and Wang, 2017). The FFM suggests five broad dimensions commonly used to describe the human personality: openness to experience, conscientiousness, extraversion, agreeableness and neuroticism (Zhang *et al.*, 2017). Specifically, extraversion means high confidence and energy, and the preference towards social behaviors, that

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is, an extravert person tends to be positive, sociable and enthusiastic (Liu, 2010).

Over the years, much research has been done to disclose the direct effects of the five dimensions on the innovative behavior of employees. The existing studies mainly centre on two concepts: organizational innovative climate and employees' innovative behavior. The former refers to the employee's awareness of the innovation environment in an organization, including but not limited to the organizational policies, management behaviors and organizational flows (Amiable *et al.*, 1996; Isaksen, *et al.*, 1999). The latter refers to the employees' creation, introduction and implementation of ideas to the benefits of the organization and themselves, such as the development of new techniques and the streamlining of management routine (Janssen, 2000; Vuong *et al.*, 2014; Su and Lin, 2018). In general, many scholars agree that extraversion has a positive effect on employees' innovative behavior. However, there is limited research on the effect of extraversion on a group of employees, not to mention a clear understanding of the influence mechanism (McCrae and Costa, 1997).

To disclose the influence mechanism, this paper adopts the FFM to explore the effects of extraversion and organizational innovative climate on employees' innovative behavior, and the moderating effect of organizational innovative climate on the relationship between extraversion and employees' innovative behavior. The subjects are employees selected from various enterprises in three Chinese cities.

Hypotheses

Extraversion and employees' innovative behavior

As mentioned before, the FFM consists of five personality traits: openness to experience, conscientiousness, extraversion, agreeableness and neuroticism. Among them, extraversion is featured by energy, positive emotions, assertiveness, sociability and the tendency to seek stimulation in the company of others, and talkativeness. Extroverted people tend to be more dominant in social settings, opposed to introverted people who may act more shy and reserved in this setting.

In terms of employees' innovative behavior, extraversion has prominent positive effects on job satisfaction, job performance, organizational commitment, etc (Liang *et al.*,

2017). Extravert employees are more likely to pursue higher status and power. They are willing to take more risks at work, and create and implement new ideas. Through the above analysis, a hypothesis was put forward below.

H1: Extraversion is positively correlated with employees' innovative behavior.

Organizational innovative climate and employees' innovative behavior

Organizational innovative climate refers to employees' cognition of organizational policies, organizational flows, management behaviors and other factors that directly or indirectly support the innovation of an organization (Sun, 2014). This concept reveals the employees' judgement of whether the objective situation encourages their innovative behavior. Organizational innovative climate can be divided into five aspects: team support, leadership support, organizational philosophy, resource support and job flexibility. According to the feature activation theory, the effects of individual features on their behaviors are regulated by their cognition of the situation (Eckes *et al.*, 2018). Ajzen and Fishbein pointed out the behavioral intention of individuals hinge on the organizational climate (Ajzen and Fishbein, 1980).

Once an employee perceives a positive organizational innovative climate, he/she tends to engage in innovation actively rather than passively. Organizational innovative climate inspires employees to care about organizational welfare and work to achieve organizational goals. The previous studies have revealed the positive impact of organizational innovative climate on employees' innovative behavior (Wang and Chang, 2017; Yan and Zhang, 2017). Through the above analysis, several hypotheses were put forward below.

H2: Team support is positively correlated with employees' innovative behavior.

H3: Leadership support is positively correlated with employees' innovative behavior.

H4: Organizational philosophy is positively correlated with employees' innovative behavior.

H5: Resource support is positively correlated with employees' innovative behavior.

H6: Job flexibility is positively correlated with employees' innovative behavior.

Moderating effect of organizational innovative climate on relationship between extraversion and employees' innovative behavior

Organizational innovative climate has a certain impact on the motives, values, attitudes and behaviors of employees' innovation. If an employee is extravert, he/she is more likely to pursue innovation under incentives. One of the incentives is organizational innovative climate, which stimulates employees' innovative behavior and supports their innovation motives and attitudes (Zhu *et al.*, 2017).

In many studies, organizational innovative climate is regarded as a major situational and dependent variable of innovative behavior. As stated by Schulte, organizational innovative climate, in the form of individual awareness, explains the varied degrees of satisfaction about the working environment among employees, in that employees tend to perceive the innovative actions taken by others. Under this climate, even those not that extrovert may positively interact with others and renovate their working methods. This is the only way for them to win the recognition of fellow workers. Thus, organizational innovative climate plays a role in the relationship between extraversion and employees' innovative behavior (Schulte *et al.*, 2006). Through the above analysis, several hypotheses were put forward below.

H7: Team support moderates the effects of extraversion on employees' innovative behavior.

H8: Leadership support moderates the effects of extraversion on employees' innovative behavior.

H9: Organizational philosophy moderates the effects of extraversion on employees' innovative behavior.

H10: Resource support moderates the effects of extraversion on employees' innovative behavior.

H11: Job flexibility moderates the effects of extraversion on employees' innovative behavior.

Methodology

Sampling

The research objects are employees selected from steel, medicine, biology and education enterprises in Chengdu, Shanghai and Wuhan, three major cities in China. A total of 300 paper and online questionnaires were issued to these employees, who answered the questions in a voluntary yet anonymous manner. A questionnaire is deemed as invalid if more than 5 questions or 5 consecutive questions are not answered.

Finally, 278 (93%) of valid questionnaires were recovered successfully. Among the respondents, 50.1% are males and 49.9% are females; the dominant age groups are 25~35 (46.9%) and 35~45 (37.0%); the leading education levels are undergraduate degree (57.8%) and master degree (31.5%); the primary work domains include technology research and development (56.4%), quality and testing (17.3%), production (12%), sales (6.7%) and administrative affairs (7.6%); those who have worked for less than 1 year or over 5 years are distributed evenly across these domains; general staff and administrative staff take up about 58.2% and 36.8%, respectively. In general, the respondents can represent the general demographics of the working population in the three cities.

Questionnaire design

Each questionnaire consists of four parts, namely, basic information, extraversion, organizational innovative climate and employees' innovative behavior. For the latter three parts, the respondent had to evaluate their situation against a 5-point Likert scale (strongly disagree, disagree, neither agree nor disagree, agree, and strongly agree). There are three items in the extraversion part: "I prefer to be a leader rather than be led", "I want to be a team leader" and "I always actively participate in teamwork" (Zhang, 2013).

The part of organizational innovative climate was further split into 5 dimensions. First, there are 4 items on team support: "My colleagues always support and coordinate with each other at work", "My colleague are willing to share tips and techniques at work", "My colleagues frequently engage in communication and discussion at work", and "My colleagues often give advices on my new ideas). Second, there are 4 items on leadership support: "My superiors respect and tolerate the opinions and objections from their subordinates", "My superiors encourage their subordinates to ideas on improving production or service", "My superiors support and coordinate the creative work of their subordinates", and "My superiors set good examples of innovation. Third, there are 3 items on organizational philosophy: "My organization encourages employees to make new attempts and draw lessons from mistakes", "My organization appreciates innovative and enterprising employees", and "My organization rewards employees for their innovative ideas. Fourth, there are 4 items on resource support: "I

have spare time to forge creative ideas or search for new methods”, “I have access to facilities and devices to prove my new ideas”, “I have access to adequate information and resource for creative work”, and “I have plenty of time to realize my new ideas”. Fifth, there are 4 items on job flexibility: “I can complete my tasks in my favourite way at work”, “My job is very challenging”, “I have the greatest say on my work”, and “My creativity is fully displayed through the job arrangement” (Liu, 2011). The part of employees' innovative behavior contains 6 items: “I often have some creative ideas at work”, “I am willing to share my new ideas with colleagues or superiors to solicit support and approval”, “I will actively look for the resources to realize my creative ideas”, “I will formulate proper plans to implement my innovative ideas”, “I often give advice to my colleagues so that they can realize their innovative ideas”, and “I am generally a creative person” (Liu and Shi, 2010).

Statistic analysis method

The data collected from the questionnaire survey were processed in SPSS 17.0 and SPSS AMOS 21.0. Specifically, confirmatory factor analysis was performed on SPSS AMOS 21.0 to examine the construct and discriminative validity of the scale, while reliability and validity test, improved exploratory factor analysis, descriptive statistical analysis and correlation analysis were conducted on SPSS 17.0 to identify data features and quality. Then, the effects of extraversion and organizational innovative climate on employees' innovative behavior were verified by hierarchical regression analysis, together with the moderating effect of various dimensions of organizational innovative climate on the relationship between extraversion and employees' innovative behavior.

Empirical Analysis

Reliability and validity test

This section discusses the data reliability and validity of the questionnaire survey. Validity stands for the correctness of the measuring model or the ability of the scale to measure the potential attributes of the objects. In theory, the average variance extracted (AVE) should exceed 0.5. The reliability, a.k.a. dependability, refers to the consistency of the results obtained by the same method or repeated measurements of the same object. According to the rest results in Table 1, the Cronbach's alpha, the indicator of reliability, was always above 0.70, and the combination reliability

(CR) above the standard value of 0.6. This means the results obtained by the scale have good reliability. The AVE of the three variables was greater than 0.5, revealing a good overall validity.

Table 1. Results of Reliability and Validity Test

Measurement index	Cronbach's α	CR	AVE
Extraversion	0.716	5.641	0.700
Team support	0.897	7.163	0.865
Leadership support	0.915	8.982	0.807
Organizational philosophy	0.905	7.917	0.835
Resource support	0.828	5.274	0.813
Job flexibility	0.772	4.860	0.791
Innovative behavior	0.885	6.058	0.835

Improved exploratory factor analysis

Since all measuring indices belong to the same questionnaire, the analysis results may be influenced by deviations of the common factor model. The traditional way to identify the problems induced by deviations is to test the non-rotating factors through an exploratory factor analysis on all variables. However, the traditional method can only determine a severe deviation when only one factor is being discussed or the explanatory power of a certain factor is particularly large. To solve the problem, the index of extraversion was combined with 1 dimension and 3 items, that of organizational innovative climate with 5 dimensions and 20 items and that of employees' innovative behavior with 1 dimension and 6 items. In this way, the traditional exploratory factor analysis was improved for analyzing non-rotating factors. The results were divided into 6 factors, explaining the total variance of 69.37%. The largest factor variance explanation rate was 38.76%, and the smallest was 3.82%, which indicates that the influence of deviations is not serious.

Confirmatory factor analysis

The scale of the questionnaire survey was fitted by the structural equation model. As shown in Table 2 to Table 6, the three factor model outperformed the single factor model or two factor model in the fitting results of the sample data. Three factor model shows that the absolute compatibility indices of the scale reached the optimal goodness of fit ($\lambda^2/df < 3$, GFI > 0.90 and RMSEA < 0.08), and the value-added fitness index also met the optimal standard (GFI, TLI and CFI values all exceeded 0.09). Thus, the scale is well-structured and compatible with our hypotheses.



Table 2. Confirmatory Factor Analysis Model for Team Support

Model	λ^2	df	λ^2/df	RMSEA	CFI	TLI	RMR	GFI
Three-factor model	152.972	62	2.467	0.073	0.953	0.941	0.038	0.924
Two-factor model a	404.514	64	6.321	0.139	0.823	0.785	0.077	0.825
Two-factor model b	605.705	64	9.464	0.175	0.719	0.657	0.076	0.690
Two-factor model c	352.311	64	5.505	0.128	0.850	0.818	0.057	0.850
Single-factor model	804.668	65	12.380	0.203	0.616	0.539	0.088	0.650

Note: Three-factor model: Extraversion; Team support; Employees' innovative behavior, Two-factor model a: Extraversion + Team support; Employees' innovative behavior, Two-factor model b: Team support + Employees' innovative behavior; Extraversion, Two-factor model c: Extraversion + Employees' innovative behavior; Team support, Single-factor model: Extraversion + Team support + Employees' innovative behavior

Table 3. Confirmatory Factor Analysis Model for Leadership Support

Model	χ^2	df	χ^2/df	RMSEA	CFI	TLI	RMR	GFI
Three-factor model	128.487	62	2.072	0.062	0.967	0.959	0.039	0.933
Two-factor model a	399.163	64	6.237	0.137	0.834	0.789	0.087	0.824
Two-factor model b	755.753	64	11.809	0.198	0.658	0.583	0.105	0.577
Two-factor model c	328.443	64	5.132	0.122	0.869	0.840	0.058	0.858
Single-factor model	943.701	65	14.518	0.221	0.565	0.478	0.112	0.608

Note: Three-factor model: Extraversion; Leadership support; Employees' innovative behavior, Two-factor model a: Extraversion + Leadership support; Employees' innovative behavior, Two-factor model b: Leadership support + Employees' innovative behavior; Extraversion, Two-factor model c: Extraversion + Employees' innovative behavior; Leadership support, Single-factor model: Extraversion + Leadership support + Employees' innovative behavior

Table 4. Confirmatory Factor Analysis Model for Organizational Philosophy

Model	χ^2	df	χ^2/df	RMSEA	CFI	TLI	RMR	GFI
Three-factor model	127.344	62	2.054	0.062	0.966	0.957	0.039	0.935
Two-factor model a	395.905	64	6.186	0.137	0.827	0.789	0.085	0.825
Two-factor model b	658.117	64	10.283	0.183	0.690	0.623	0.102	0.672
Two-factor model c	327.270	64	5.114	0.122	0.863	0.833	0.057	0.860
Single-factor model	858.329	65	13.205	0.210	0.587	0.504	0.111	0.634

Note: Three-factor model: Extraversion; Organizational philosophy; Employees' innovative behavior, Two-factor model a: Extraversion + Organizational philosophy; Employees' innovative behavior, Two-factor model b: Organizational philosophy + Employees' innovative behavior; Extraversion, Two-factor model c: Extraversion + Employees' innovative behavior; Organizational philosophy, Single-factor model: Extraversion + Organizational philosophy + Employees' innovative behavior

Table 5. Confirmatory Factor Analysis Model for Resource Support

Model	χ^2	df	χ^2/df	RMSEA	CFI	TLI	RMR	GFI
Three-factor model	137.161	62	2.212	0.066	0.955	0.943	0.036	0.933
Two-factor model a	363.132	64	5.674	0.130	0.820	0.780	0.065	0.844
Two-factor model b	396.540	64	6.196	0.137	0.800	0.756	0.077	0.795
Two-factor model c	338.083	64	5.283	0.124	0.835	0.799	0.058	0.858
Single-factor model	590.674	65	9.087	0.171	0.683	0.620	0.086	0.742

Note: Three-factor model: Extraversion; Resource support; Employees' innovative behavior, Two-factor model a: Extraversion + Resource support; Employees' innovative behavior, Two-factor model b: Resource support + Employees' innovative behavior; Extraversion, Two-factor model c: Extraversion + Employees' innovative behavior; Resource support, Single-factor model: Extraversion + Resource support + Employees' innovative behavior

Table 6. Confirmatory Factor Analysis Model for Job Flexibility

Model	χ^2	df	χ^2/df	RMSEA	CFI	TLI	RMR	GFI
Three-factor model	129.468	62	2.088	0.063	0.956	0.945	0.038	0.934
Two-factor model a	361.261	64	5.645	0.129	0.807	0.765	0.064	0.836
Two-factor model b	264.775	64	4.137	0.106	0.870	0.842	0.052	0.860
Two-factor model c	329.279	64	5.145	0.122	0.828	0.791	0.058	0.859
Single-factor model	464.734	65	7.150	0.149	0.741	0.689	0.068	0.797

Note: Three-factor model: Extraversion; Job flexibility; Employees' innovative behavior, Two-factor model a: Extraversion + Job flexibility; Employees' innovative behavior, Two-factor model b: Job flexibility + Employees' innovative behavior; Extraversion, Two-factor model c: Extraversion + Employees' innovative behavior; Job flexibility, Single-factor model: Extraversion + Job flexibility + Employees' innovative behavior



Table 7. Mean, Standard Deviation and Correlation Coefficient (N=278)

Variable	Mean	Standard deviation	Extraversion	Team support	Leadership support	Organizational philosophy	Resource support	Job flexibility	Innovative behavior
Extraversion	3.363	0.858	1						
Team support	3.605	0.811	0.253**	1					
Leadership support	3.481	0.897	0.192**	0.627**	1				
Organizational philosophy	3.389	0.902	0.208**	0.506**	0.770**	1			
Resource support	3.119	0.901	0.324**	0.392**	0.510**	0.629**	1		
Job flexibility	3.327	0.800	0.247**	0.434**	0.491**	0.540**	0.553**	1	
Innovative behavior	3.414	0.766	0.390**	0.465**	0.417**	0.411**	0.469**	0.520**	1

Note: ** respectively represent $p < 0.01$

Table 8. Regression Coefficients of Extraversion, Organizational Innovative Climate and Employees' Innovative Behaviour

Predictive variable	t	β	R ²	ΔR^2	F value	p
Extraversion	7.032	0.390	0.152	0.149	49.435	0.000
Team support	8.729	0.465	0.216	0.213	76.188	0.000
Leadership support	7.630	0.417	0.174	0.171	58.210	0.000
Organizational philosophy	7.484	0.411	0.169	0.166	56.014	0.000
Resource support	8.827	0.469	0.220	0.217	77.922	0.000
Job flexibility	10.108	0.520	0.270	0.268	102.171	0.000

Descriptive statistical analysis and correlation analysis

Descriptive statistical analysis was performed on the sample data. Table 7 lists the mean, standard deviation and correlation between extraversion, organizational innovative climate and employees' innovative behavior. The results of correlation analysis show that extraversion is positively correlated with organizational innovative climate and employees' innovative behavior. These results lay the basis of subsequent discussion.

Regression Analysis

(1) Effects of extraversion and organizational innovative climate on employees' innovative behavior

The relationships among extraversion, organizational innovative climate and employees' innovative behavior were explored by multiple regression method. During the regression, the innovative behavior of all employees in an organization were considered as a whole, and the mean value of all items in each dimension of organizational innovative climate was taken as the organizational innovative climate score. According to the results in Table 8, extraversion had a significant positive effect on employees' innovative behavior ($\beta=0.390, p<0.01$). The team support, leadership support, organizational philosophy, resource support and job flexibility all exerted significant positive effects on employees' innovative behavior, as evidenced by the results ($\beta=0.464, p<0.01$), ($\beta=0.417, p<0.01$), ($\beta=0.411, p<0.01$), ($\beta=0.469, p<0.01$) and ($\beta=0.520, p<0.01$). Thus, Hypotheses H1~6 were all proved valid.

(2) Moderating effect of organizational innovative climate

The interaction variables of extraversion and organizational innovative climate were added to the regression model, aiming to reveal the moderating effect of organizational innovative climate on the relationship between extraversion and employees' innovative behavior.

Before the analysis on moderating effect, the independent variables and moderating variables were synthesized. Then, a regression model with a product term was used for hierarchical regression analysis. The analysis was implemented in the following steps. First, regress dependent variables to independent and moderating variables to obtain the determination coefficient moderation R_1^2 . Second, regress dependent variables to independent variable, moderating variable and interaction term to obtain the coefficient moderation R_2^2 . The moderating effect should be considered significant if R_2^2 is significantly higher than R_1^2 , and $p < 0.05$.

Through the above steps, the moderating effects of team support, leadership support, organizational philosophy, resource support and job flexibility were analyzed with gender, age, education background, work domain and years of working as control variables. The analysis results are shown in Table 9. With team support as the moderating variable, the values of R_1^2 and R_2^2 were 0.290 and 0.295, respectively. Thus, R_2^2 was greater than R_1^2 . However, the interaction between extraversion and team support



Table 9 Moderating Effect of Organizational Innovative Climate

Dependent variable	Steps	Variable	β (t)	ΔR^2	F value
Innovative behavior	1	Extraversion	5.553	0.290	57.632
	2	Team support	7.481		
		Extraversion * Team support	-1.641	0.295	39.556
	1	Extraversion	6.139	0.268	51.817
	2	Leadership support	6.790		
		Extraversion * Leadership support	-1.106	0.269	34.981
	1	Extraversion	6.018	0.260	49.686
	2	Organizational philosophy	6.518		
		Extraversion * Organizational philosophy	-0.763	0.259	33.267
	1	Extraversion	4.919	0.278	54.335
	2	Resource support	7.097		
		Extraversion * Resource support	-2.176**	0.288**	38.293**
	1	Extraversion	5.520	0.338	71.776
	2	Job flexibility	8.941		
		Extraversion * Job flexibility	-0.775	0.337	47.981

Note: ** respectively represent $p < 0.01$

($\beta = -1.641$, $p > 0.05$) had no significant effect on employees' innovative behavior, indicating that the moderating effect of team support was not significant. The other dimensions of organizational innovative climate were analyzed in a similar manner. Through the analysis, it is learned that resource support is the only dimension of organizational innovative climate that has a certain moderating effect on the relationship between extraversion and employees' innovative behavior.

There was a significant interaction between extraversion and resource support. The regression coefficient of the interaction term between extraversion and resource support was negative, as shown in Figure 1. This means high extraversion actually weakened the positive effect of resource support on employees' innovative behavior, that is, the effect of resource support on employees' innovative behavior is low under a high level of extraversion. The inverse is also true. Thus, resource support does have a moderating effect and is a purely moderating variable. Consequently, hypothesis H10 was proved as valid.

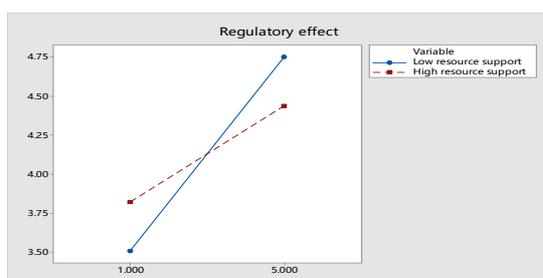


Figure 1. Interaction between Extraversion and Resource Support

Conclusions

This paper recovers the significant impact of extraversion on employees' innovative behavior. The employees' innovative behavior is adopted as the output variable, rather than routinely select extraversion as the antecedent variable. Meanwhile, the author investigated how the relationship between extraversion and employees' innovative behavior is moderated by five dimensions of organizational innovative climate. In this way, it is learned that resource support has a moderating effect on the relationship between extraversion and employees' innovative behavior: the higher the resource support, the greater the effects of extraversion on employees' innovative behavior. Thus, resource support enjoys a positive effect on organizational innovative climate. By contrast, the other dimensions of organizational innovative climate exert no moderating effect on the relationship between extraversion and employees' innovative behavior. Suffice it to say that this research pioneers the multi-dimensional and multi-sample research on the effects and influence mechanism of extraversion on a group of employees.

In light of the research findings, several suggestions were put forward for the human resources (HR) department in organizations. First, the HR managers should give more opportunities to employees with high level of extroversion, because extraversion has a positive effect on employees' innovative behavior. Second, organizations must provide employees with sufficient resources (e.g. funds, manpower, information and devices) for innovation, considering the moderating effect of resource



support. Other measures include introducing well-established HR management system, setting up fair and just rules on remuneration and promotion, monitoring the self-innovative behavior of employees, providing smooth channels for internal communication, etc. Of course, this research also has its limitations, such as the overemphasis on individual-level variables and static effects. Therefore, the future research will fully demonstrate the effects of extraversion on employees' innovative behavior with a sample sufficiently large in size and diverse in sectors, and investigate if there are mediation factors (e.g. Chinese culture and self-efficacy) for the relationship between extraversion and employees' innovative behavior other than organizational innovative climate.

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