Research on the Influencing Factors of Employees' Green Behavior from the Perspective of AMO

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Abstract: Using the AMO theory tool, this paper analyzes the factors that affect the employees' green behavior, and selects the green self-efficacy (green ability) by using the data of 305employees in the enterprise. Organization green support atmosphere (green opportunity) and internal work motivation (green motivation) as variables for empirical analysis. The results show that employees' green behavior is influenced by green ability, green motivation and green opportunity, and green motivation and green ability have a positive effect on employees' green behavior through green opportunity.

1. Introduction

Facing the double pressure of environmental problems and shortage of resources, enterprises pay more and more attention to ecological and environmental benefits while pursuing economic benefits. The concept of sustainable development has become an industry consensus (Bansal & Song, 2017 / Starik & Marcus, 2000). In order to achieve the sustainable development goals, enterprises develop various environmental protection systems and measures, but from the formulation to the implementation of these policies, they require the active cooperation of personnel from all levels of the enterprise. Therefore, the role of employees' green behavior in the process of environmental protection goal management has been paid more and more attention by (Felin, Foss, & Ployhart, 2015; Vlek & Steg, 2007). At the same time, the focus of the theory circle on the issue of green behavior is also increasing. A large number of studies have been carried out from the factors and mechanisms of employees' green behavior, less from the perspective of employees' green ability, motivation and opportunity.

2. Theoretical basis and research hypotheses

2.1 AMO theoretical model

The emergence and development of AMO theory has gone through a long process. In 1982, Blumerg and Pringel first proposed that job performance is the result of personal competence, willingness and opportunity in an organization. In 1993, Bailey emphasized the importance of opportunity and clearly proposed that employees' ability, motivation and job opportunities jointly promote the improvement of organizational performance. In 2000, Appelbaum continued the previous research thinking, and considered employee performance as a function of employee competence, motivation and opportunity. Re-emphasize that employees' behavior and performance are influenced by ability, motivation and opportunity, as shown in figure 1. In 2001, Bailey et al. re-discussed the AMO theory and affirmed that it has reached a certain level of skill. Employees who are fully motivated and given the opportunity to participate in decision-making are of great value to their high performance behavior.
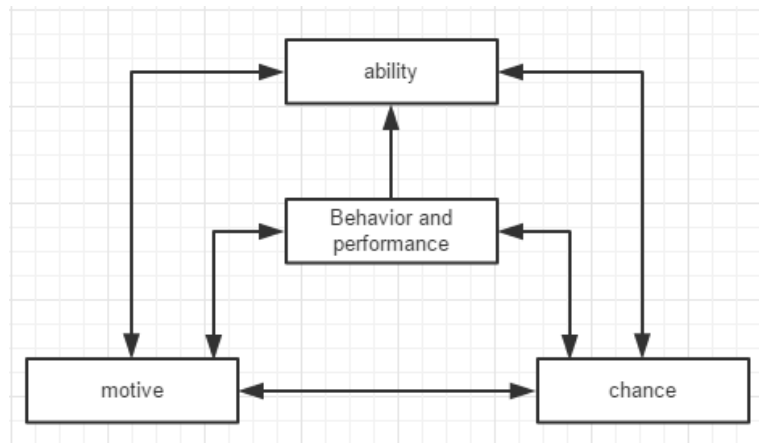
Figure 1 AMO model

2.2 Employee green behavior

"Green behavior", also known as "environmentally friendly behavior," refers to a series of actions that promote environmental protection (Unsworth et al., 2013). Stem (2000) defines it as an act that reduces harm to the natural environment. Individuals and organizations buy green products, recycle resources and reduce waste production as green activities. One and Dichert (2012) introduced the behavior of promoting environmental protection to the research in the field of work, which defined the green behavior of employees. At present, regarding the definition of employee green behavior, scholars use environmental protection organization citizenship behavior to explore employee green behavior (Daily,2009;Borial and Paill6,2012). Combined with previous research, this paper holds that employees' green behavior refers to a series of environmental and pro-environmental behaviors in order to achieve the sustainable development of the organization's environment. Based on the research of AMO theory, this paper argues that employees' green behavior and performance are influenced by their green ability, green motivation and green opportunity.

2.3 Green self-efficacy: employees' perceived Green ability

Self-efficacy refers to an individual's ability to assess and judge whether or not he can organize and implement a given goal. It is a generative perception of resource-oriented expected behavior, including goal setting, effort and permanence (Bandura A, 1993). The results of empirical studies show that self-efficacy plays a positive role in important job and task performance (Huszczo G, 2017). Under the background of global green development, some scholars introduced self-efficacy into the field of environment, and put forward the concept of green self-efficacy (Chen Y S, 2015). Green self-efficacy refers to the assessment and judgment (Huang, 2016) of the individual's ability to organize and implement the ability to achieve the environmental goals. After the concept of green self-efficacy was proposed, many scholars used the theory of green self-efficacy to explain various environmental problems in the workplace. Previous studies have found that green self-efficacy has a positive predictive power on green performance, green creativity, and green behavior, (Chen Y S, 2014Huang, 2016).

2.4 Intrinsic Job motivation: employees' Green motivation

According to the theory of self-determination, behavior is the result of the interaction between autonomous motivation and control motivation, and is a free choice (Ryan and Deci,2000) based on the knowledge of one's own needs and environmental information. From the perspective of this point of view, the implementation of green behavior on the one hand is the satisfaction of independent motivation, that is, they want to obtain personal satisfaction from this kind of behavior; On the other hand, the satisfaction of control motivation, that is, they believe that their behavior will be rewarded by enterprises, encourage and support. Graves et al. (2013) found that autonomous motivation and control motivation have a direct and significant impact on employees' green

behavior.

2.5 Organizational Green support atmosphere: employee Green opportunity

In his research in the late 1930s, Kurt Lewin mentioned many questions concerning organizational atmosphere. Lewin pointed out the functional relationship between a person's own behavior and his environment as a function of interrelated variables. In other words, if you want to understand a person's behavior, you must relate that behavior to the situation in which it occurs. This view of interaction between human and environment lays a theoretical foundation for the study of organizational atmosphere. Based on this theory, we can think that the organizational green support atmosphere can have a subtle impact on employees' green behavior and thus affect their behavior. In other words, an organization's green support climate from companies and colleagues can have a positive impact on employees' green behavior.

In summary, we propose the following hypotheses:

H1: green self-efficacy has a positive correlation with employees' green behavior.

H2: there is a positive correlation between internal green motivation and employees' green behavior.

H3. organizational green support atmosphere has a positive correlation with employees' green behavior.

2.6 The mediating role of intrinsic work motivation and green self-efficacy

The AMO theory emphasizes the combined effects of competence, motivation, and opportunity on behavior and performance, as shown in figure 1. Therefore, this paper infers that employees' green behavior is influenced by their green ability, motivation and opportunity. According to the "event-emotion-attitude-behavior" analysis framework of emotional event theory, the organization green support atmosphere affects employees' work motivation and green behavior. The supportive atmosphere of the organization to the green activities promotes the positive emotion of the employees in the workplace, and these positive emotions also induce the positive attitude of the employees to the green activities, which leads to more green behaviors of the employees. In terms of the impact of an organizational green supportive atmosphere on employees' green self-efficacy and green behavior, according to the theory of self-consistency, individuals demonstrate motivation consistent with their self-image in their work or tasks. That is, it is easier to choose behaviors that shape and enhance self-image (Marquimei et al., 2015). As a result, individuals with high green self-efficacy were more likely to implement green behavior (Tabernero C, 2011). As the green sense of self-efficacy increases, individuals may be more likely to do tasks or deal with things in a green manner. For example, Yildirim and others investigated 1074 residents in Taiwan and found that green self-efficacy has a direct impact on three types of environmental behavior (inclusive, promotive and active). The results show that the green self-efficacy has a direct impact on (Yildirim F, including inclusive environmental behavior, promotive environmental behavior and active environmental behavior. (2015). Tabernero and Hernan-dez found that green self-efficacy had a positive effect on recycling environmental responsibility (Tabernero C, 2011).

In summary, this paper puts forward the following hypotheses:

H4: the relationship between the green supporting atmosphere and the employees' green behavior.

H5: the relationship between Green support atmosphere and employees' Green behavior in Green self-efficacy intermediary organizations.

Based on the above theoretical deduction and research hypotheses, this paper constructs an integration model of factors that affect employees' green behavior, as shown in figure 2.
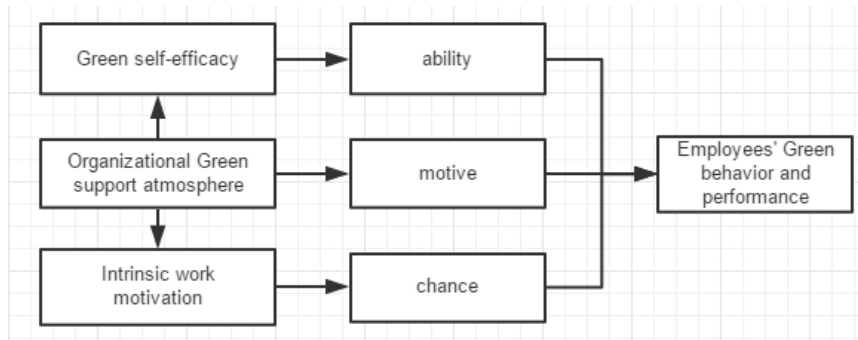
Figure 2 Hypothetical model

3. Research technique

3.1 Research variable

3.1.1 Employee green behavior

Combined with the existing research results and the application of domestic enterprises, this paper integrates the typical items of three foreign scales as the green behavior scale of employees in this paper. The scale contains nine items, of which "I will avoid unnecessary printing to save paper" and other three items from Kim and Han (2017) on the voluntary green behavior of employees; "I would set the office air conditioning at the right temperature," according to Kaida (2017) on environmental behavior; "I'll turn off the lights when I leave the office or empty room," said Lamm and Thoma (2016) of the study on Citizenship behavior of Environmental groups. The results of pre-investigation show that the items in the scale basically cover the general green behavior of employees in the company, and have good reliability and structural validity.

3.1.2 Green self-efficacy

The variable was measured by Green self-efficacy scale developed by Chen et al. Like "I can creatively come up with solutions to environmental problems."

3.1.3 Intrinsic work motivation

The internal motivation subscale of the work preference scale developed by Wang Bin (2007) is composed of six items, such as "to me, the most important thing is to be able to enjoy the work".

3.1.4 Organizational Green support atmosphere

According to the scale of 8 items developed by Norton et al. (2014), this paper measures the organization's green support atmosphere. This scale measures employees' perception of environment-friendly organizational atmosphere from two dimensions: organizational support and co-worker support. The items in the organizational support dimension include: "our company is concerned about its impact on the environment," and "our company is committed to supporting the cause of environmental protection." "our company considers it important to protect the environment" and "our company is keen on further environmentally friendly development"; Co-worker support dimension items include: "in my company, colleagues are concerned about environmental issues", "in my company, colleagues are keen to work in an environmentally friendly way", "in my company," Colleagues try to minimize harm to the environment "and" in my company, colleagues care about the environment. "The answer options are set using the Richter 5 scale from 1 (very dissenting) to 5 (very agreed). The Cronbach's α values of organizational support and co-worker support were 0.93 and 0.92, respectively, with good reliability.

3.1.5 Controlled variable

The gender, age, education level, working years and the nature of the work unit are regarded as the control variables of this paper.

3.2 Research sample

The survey was conducted in 13 enterprises in Guangzhou, Shenzhen, Beijing and Harbin, including manufacturing, catering and construction industries. Through the recommendation of acquaintances, 352 questionnaires were sent online to the working enterprise personnel, and 305 valid questionnaires were recovered. The proportion of valid questionnaires was 82.88%. In terms of gender, men accounted for 45.36%, marital status was 62.35%, married was 37.65%. In terms of working years, 35.62% were under one year, 38.37% in 1-3 years, 10.87% in 4-6 years, 6.12% in 7-9 years, and 9.02% in 10 or more years. The level of education is 2.75% in junior middle school and below, 2.62% in senior middle school, 9.52% in junior college, 56.25% in undergraduate degree, 28.86% in master degree and above. In terms of the nature of work units, 18.56% are administrative / institutional units, 8.62% are joint ventures (including wholly foreign-owned enterprises), 18.53% are state-owned (including collectives), and 26.38% are private. Domestic listed companies accounted for 9.62%, and other companies accounted for 18.29%.

4. Empirical analysis

4.1 Validity and reliability test

SPSS21.0 statistical software was used to test the reliability of four core variables, namely, green self-efficacy, internal work motivation, organizational green support atmosphere and employees' green behavior. The reliability of the variables was 0.725, 0.716, 0.801, 0.802, 0.802, respectively. All of them were above 0.7, which indicated that the four variables had higher reliability. In addition, AMOS21.0 software is used to carry out confirmatory factor analysis of each measurement model. Select χ^2,df,χ^2/df,GFI and so on to test the overall fit degree, see Table 2. According to the data display, the fitting index values of each measurement model are up to the standard, which indicates that the fitting effect is good.

Table 1 overall fitting effect of each measurement model

measurement model	χ^2	df	χ^2/df	GFI	NFI	CFI	IFI	TLI	RMSEA
Green self-efficacy	1.686	2	0.843	0.997	0.984	0.996	1.001	1.002	0.065
Intrinsic work motivation	6.422	8	0.803	0.993	0.957	0.992	1.008	1.016	0.012
Organizational Green support atmosphere	3.023	1	3.023	0.995	0.982	0.995	0.995	0.971	0.079
Employee green behavior	8.048	7	1.151	0.991	0.973	0.998	0.998	0.995	0.021

pour:***express p＜.001,**express p＜.01,*express p＜.05, two-tailed test.similarly hereinafter

4.2 Homologous error and multivariate collinearity test

Harman single factor analysis was used to test the homologous error of the questionnaire. The results show that the contribution rate of each factor is 66.53%, and the variance interpretation power of the factor with the largest eigenvalue is 30.28%. There is no accumulative variance of a single factor occupying the majority of the phenomenon. The data used in this paper have no serious homologous errors. At the same time, all models are tested for multivariate collinearity. The results show that the variance expansion factor value of each variable is between 1.215 and 1.438, and there is no serious collinearity problem, which indicates that the regression analysis results in this paper are reliable.

4.3 hypothesis test

By using the statistical software of AMOS21.0 model, the theoretical model constructed in this paper is tested. As can be seen from Table 2 data, the path coefficients of green self-efficacy,

intrinsic work motivation and organizational green support atmosphere to employees' green behavior are 0.305, 0.167, 0.113, respectively. The path coefficients of internal work motivation and green self-efficacy of organization green support atmosphere were 0.227 and 0.417 respectively, which showed that green self-efficacy and internal work motivation were significant. The green support atmosphere of the organization positively affected the employees' green behavior, assuming that H 1, H 2 and H 3 were supported. At the same time, the organization green support atmosphere has a positive impact on employees' internal work motivation and green self-efficacy, which provides a basis for further verification of the intermediary role of the organization's green support atmosphere.

Table 2 Path coefficient Analysis of the relationship between variables

Hypothesis of inter-variable relationship	path coefficient	standard deviation	Critical ratio	conspicuousness
Green self-efficacy→Employee green behavior	0.305	0.043	5.644	***
Intrinsic work motivation→Employee green behavior	0.167	0.067	2.164	*
Organizational Green support atmosphere→Employee green behavior	0.113	0.025	3.385	***
Organizational Green support atmosphere→Intrinsic work motivation	0.227	0.059	3.767	***
Organizational Green support atmosphere→Green self-efficacy	0.417	0.067	5.459	***

In order to test the medium effect, the models are established separately. M1,M2 and M3.Check the χ^2 difference between M1 and M2 and M3, as shown in Table 3.The results showed that $\Delta\chi^2$ was significant (p < 0.001), indicating that M1 was the best fit. The fitting index of M1 is the best. It is proved that the green supporting atmosphere has a positive effect on employees' green behavior through the mediation of internal motivation and green self-efficacy. Hypothesis 4 and hypothesis 5 are verified.

Table 3 Intermediary model comparison

model	χ^2	df	χ^2/df	TLI	CFI	RMSEA	$\Delta\chi^2$
M1	313.378	154	2.035	0.905	0.911	0.047	
M2	371.12	152	2.442	0.868	0.883	0.055	54.752
M3	354.149	156	2.271	0.876	0.902	0.052	38.771

pour: M1 indicates that the organization's green support atmosphere is driven by employees' internal motivation to work. The mediating effect of green self-efficacy affects the path model of employees' green behavior. M2 indicates that the organization's green supporting atmosphere influences employees' green behavior through the intrinsic motivation of work; M3 indicates that the organization's green support atmosphere affects employees' green behavior through a green sense of self-efficacy.

5. Conclusion

5.1 Research conclusion and discussion

(1) The factors such as green self-efficacy, internal work motivation and organizational green support atmosphere all have a positive impact on employees' green behavior.

(2) The organization green support atmosphere has a positive effect on employees' green behavior through the mediating role of employees' green self-efficacy and intrinsic motivation factors.

5.2 Management enlightenment

(1) The green behavior of employees is influenced by their green consciousness, green ability

and external environmental conditions. Therefore, in the process of stimulating the green behavior of employees, the organization should cultivate employees' green skills and stimulate employees' green motivation. Create a green support atmosphere, so that employees produce green behavior.

(2) Attach importance to the role of organizational support atmosphere in the green behavior of employees. In this paper, the organization green support atmosphere has a positive impact on employees' green behavior through internal motivation and green self-efficacy. Therefore, the organization needs to actively guide employees to identify the organization's green culture, policies and practices. And help staff strengthen green ability, provide green practice opportunity.

5.3 Research limitations and prospects

This paper also has some limitations. First of all, in the aspect of data collection, questionnaire survey is mainly used to collect data, and the representativeness of the sample is insufficient. Secondly, there are other variables that affect the employees' green behavior. This paper only selects the organizational green support atmosphere, internal motivation, green self-efficacy and other factors, and the selection of variables is insufficient.

In the future, we can expand the scope of research, expand the collection channels of samples, in order to obtain more rich and comprehensive information. In the framework of ability, motivation, opportunity and other factors affecting green behavior, more variables such as external motivation, self-responsibility and other variables affecting employees' green ability, motivation and opportunity can be added.

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