

# Review and Prospect of Research on Employee Green Behavior

Qiao Zhang \*

Southwest Petroleum University, Chengdu Sichuan, 610000, China

\* Corresponding author Email: qiao09212024@163.com

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**Abstract:** The current environmental problems are becoming more and more serious, and enterprises, as the main creators of environmental problems, pay more and more attention to environmental problems, and the green practices of enterprises need to rely on their employees to achieve them, so the attention to the green behavior of employees is increasing. Although research in this field has been gradually carried out both at home and abroad, there are still some deficiencies. This paper collates the conceptual connotations of employees' green behaviors by sorting out the relevant literature, analyzes the influencing factors of employees' green behaviors from the individual level and the situational level respectively, and finally puts forward deficiencies in employees' green behaviors research as well as the future outlook, to provide a reference to the research on employees' green behaviors in the future.

**Keywords:** Employee Green Behaviour; Environmental Behaviour; Research Review.

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## 1. Introduction

Since the Industrial Revolution, the global economy has been growing at a high rate, and with it, the negative impacts of high-speed development have led to three major global crises, resource scarcity, environmental pollution, and ecological damage. In March 2023, the International Energy Agency released its Carbon Dioxide Emissions Report 2022 and stated that global energy-related CO<sub>2</sub> emissions reached 36.8 billion tonnes in 2022, a year-on-year increase of 0.9 percent (321 million tonnes) [1]. Enterprises, as the main contributors to these environmental problems, have developed green measures to pursue sustainable development. However, the implementation and realization of green measures rely heavily on the cooperation and participation of employees[2]. Employees are considered to play a fundamental role as the core element in translating an organization's sustainability mission and strategy into measurable results[3].

Employees are considered to play a fundamental role in transforming an organization's mission and strategy into measurable results. In the workplace, employees' participation in green procurement, green traveling, waste separation, paperless offices, and low-carbon renovation are common manifestations of employees' green behaviors[4]. Employees as the most active people in the enterprise are the most active people in the enterprise. As the most active part of the enterprise, employees have an important influence on the future development of the enterprise, and the successful green practice of the enterprise needs to rely on the active participation of every employee. Therefore, to accelerate the achievement of the "dual-carbon" goal and low-carbon sustainable development, it is necessary to pay great attention to the green behavior of employees and adopt effective measures and policies to motivate employees to actively practice green behavior. Therefore, this paper will systematically sort out the relevant literature at home and abroad, deeply analyze the concept of employees' green behaviors, and influencing factors, and summarize the shortcomings of the current research, while looking forward

to the future research direction.

## 2. Conceptual Definition

Employee green behavior stems from environmental protection behavior, which belongs to pro-environmental behavior, and similar concepts include low carbon behavior in the workplace, employee environmental protection behavior, and pro-environmental organization citizenship behavior, although these concepts are slightly different in expression, their connotations have greater similarity. At present, scholars at home and abroad do not have a unified conclusion about the concept of employee green behavior, at the end of the 20th century, western scholars formally put forward the environmental protection behavior, in later research, scholars through the extension and deepening of the concept of environmental protection, and further put forward about the concept of green behavior in the workplace of individuals[5]. Deng Fuyu et al. (2019) argued that green behavior consists of avoiding the use and acceptance of high-carbon emission goods and services to the maximum extent possible, to achieve the purpose of conserving resources and protecting the environment, and thus reducing carbon emissions[6]. Ciocirlan (2017) argues that employee green behaviors are a broader range of work behaviors that protect or improve the natural environment, which may generate value for the organization, and that these behaviors may be performed by employees at any organizational level, compared to previous definitions of citizenship behaviors in environmental organizations[7]. Bin Saeed (2019) et al. define it as environmental activities in which employees participate voluntarily and which are important in shaping the organization's social image and improving environmental performance. and it is important in shaping the organization's social image and improving its environmental performance [8].

Based on this, this paper refers to Peng (2022) who defines employee green behavior as the quantifiable behavior of employees who actively participate in environmental management and protection in the enterprise and contribute

to the sustainable development of the enterprise with practical actions, which is an important force to promote green development[9].

### 3. Analysis of Factors Influencing Employees' Green Behavior

Through combing through the literature, it is found that the factors affecting employees' green behavior in existing studies mainly focus on individual factors and situational factors. Individual factors include employee responsibility, employee attitude, and green self-efficacy; situational factors include leadership behavior, organizational green climate, green human resource management, and corporate social responsibility.

#### 1. Individual factors

##### (1) Employee Responsibility

According to normative activation theory, when employees are aware of the negative consequences for others of not implementing green behaviors and are aware of their responsibility for these negative consequences, the resulting sense of responsibility motivates employees to implement green behaviors. Responsibility is an intrinsic motivator[10]. A sense of responsibility is an intrinsic motivation that drives employees to focus on the long-term interests of the organization, including environmental sustainability. When employees have a high level of responsibility for their work, they are more likely to take a proactive approach to implementing green behaviors that are conducive to corporate sustainability. Further research suggests that the sense of low-carbon-related responsibility that employees develop at work drives them to implement green behaviors through deep ethical reflection. Andrea et al.'s (2017) study found that when employees recognize the environmental impact of their actions, they reflect deeply on their sense of ethical responsibility[11]. This ethical reflection is not just about evaluating individual behavior, but also about the relationship between the individual society and the environment. Employees will think about their responsibility to the environment and how they can reduce their negative impact on the environment by implementing green behaviors.

##### (2) Staff Attitude

Attitude is considered to be the main determinant of employees' green behavior, and attitude refers to employees' positive or negative evaluations of a particular behavior. It reflects an individual's degree of preference for a particular behavior, the degree of identification with it, and the attitude towards the results and consequences that may result from the behavior. Based on this premise, employees' positive or negative attitudes towards green behaviors largely determine whether they will develop a willingness to engage in green behaviors and put them into practice. In other words, if employees believe that green behaviors are valuable to the company and play an important role in promoting the sustainable development of the company, then they tend to have a positive attitude towards such behaviors and show a firm green intention. Researchers Zhao et al. (2022)[12], Xu et al. (2021)[13], and Gao et al. (2017)[14] studied the green behavior of employees in different workplaces with different types of jobs, respectively, and all of them confirmed that attitude has a significant positive effect on employees' green behavior.

##### (3) Green self-efficacy

Self-efficacy is defined as a person's confidence in his or

her abilities and is related to an individual's competencies, abilities, and skills to perform targeted behaviors[15]. Gu Yuandong (2010) found that the level of self-efficacy influences an individual's decision whether to perform a certain behavior or not[16]. Lv Rongsheng et al. (2016) found that the higher the self-efficacy, the easier it is to motivate people to perform green behaviors, and that high self-efficacy is conducive to the implementation of green behaviors. High self-efficacy is conducive to the implementation of green behaviors[17]. Liu, Zonghua, et al. (2020) found that factors including knowledge, skills, opportunities, resources, and time can greatly influence a person's control over behavior[18]. For example, if an employee wants to promote green energy-saving measures in the workplace but lacks the appropriate knowledge and resources, then this behavior will have to be abandoned. Kim et al. (2016) argued that over time, employees may learn how to perform their tasks in a green way, and their self-efficacy grows, i.e., the employee perceives that he or she possesses the ability to implement green behaviors and that employees possessing this perception of employees will be motivated to implement green behaviors and complete green tasks in the organization by putting in greater effort. The following are some examples of how employees can implement green behaviors[19].

#### 2. Situational factors

##### (1) Leadership behavior

Workplaces are generally public areas, which means that employees' behavior is always visible to others and they are always under the scrutiny of their leaders, this visibility increases the impact of leaders' opinions on employees' green behavior[20]. According to Robertson et al. (2013), leaders themselves signal to their employees by implementing low-carbon behaviors, and this signal will make employees realize that such behaviors are valued and expected in the organization and will lead to desirable outcomes, and therefore will implement the same behaviors. In other words, employees usually display similar values and behaviors to their leaders to form a good relationship with them[21]. Mayer et al. (2017) argued that the position and power held by the leader make him or her an important reference for employees in their work, which is an important source of information for subordinates to adopt appropriate behaviors[22]. Afsar et al. (2015) studied the impact of spiritual leadership on employees' low carbon behavior using employees from several industries in Thailand, and found that spiritual leadership can indirectly positively affect employees' low carbon behavior through a positive influence on the work environment. The results found that spiritual leaders can indirectly positively influence employees' low-carbon behavior through positive influence on the work environment[23].

##### (2) Organizing a green atmosphere

Norton et al. (2014) proposed the concept of a green climate, i.e. a relatively unified set of values that can regulate employees' green behaviors and promote sustainable development of the enterprise, developed internally by the enterprise through the implementation of a series of low-carbon related policies[24]. Companies demonstrate their commitment to environmental protection through clear green policies and goals. These policies and objectives not only provide employees with guidelines for action but also give them a sense of the organization's commitment to environmental protection. With clear goals and guidance, employees are more likely to form habits of green behavior

and incorporate environmental concepts into their daily work. Paille et al.'s (2016) study shows that employees are more trusting when they are in an organization with strong organizational support, and thus are more likely to respond to the organization's calls for environmental protection and implement green behaviors[25]. Peng et al. (2022) found that pro-environmental organizational climate positively influenced employees' green behaviors through the multi-step mediation of green organizational identity and green self-efficacy[26]. In addition, Chang Jong-won's (2021) findings showed that a green climate within the organization had a significant positive effect on employees' green behavior[27].

#### (3) Green human resources management

Research has shown that human resources policies can influence employees' participation in sustainable development-related behaviors, attitudes, knowledge, and motivation. To respond to environmental challenges and promote sustainable development of enterprises, green human resource management, as a new management concept and model, integrates green concepts into the field of human resource management. Its goal is to improve the economic, social, and ecological benefits of enterprises by adopting green management strategies[28].

A study by Zibarras et al. (2015) found that green HRM practices can facilitate the implementation of green behaviors by employees through methods such as training and empowerment[29]. By providing employees with relevant green training courses, they can acquire more green knowledge and skills, thus enhancing their ability and willingness to engage in environmentally friendly behaviors. In addition, by empowering employees to participate in green decision-making and actions and enhancing their sense of responsibility and belonging, they can also be motivated to actively adopt green behaviors. Zhou Jinfan et al.'s (2018) study points out that green human resource management practices can have an impact on employees' green behaviors through autonomous motivation[30]. Giving employees greater autonomy and decision-making power and encouraging them to participate in activities and projects related to environmental protection, can stimulate employees' intrinsic motivation and increase their recognition and commitment to green behaviors. Tang Guiyao et al.'s (2021) study points out that green human resource management practices can also have an impact on employees' green behavior through information transfer and supervisor support[31]. Employees can choose and judge their values based on the information provided in green HRM practices, which affects their attitudes and behavioral intentions towards green behaviors. At the same time, when employees perceive their supervisors' attention and support for green behaviors, they will be inspired to be environmentally friendly and show more green behaviors. Therefore, the effective application of green human resource management practices can promote employees' green behaviors, which in turn can promote the sustainable development of enterprises.

#### (4) Corporate Social Responsibility

Corporate social responsibility means that enterprises are not only concerned about economic benefits, but also actively assume responsibility for society and the environment. When an enterprise puts forward and practices the goals of green development, employees will realize that these goals are not only the expectations of the enterprise but also the common pursuit of environmental protection by society. This strong sense of responsibility will inspire employees to actively

adopt green behaviors and contribute to the sustainable development of the enterprise and society. As participants, implementers, and observers of CSR practice activities, employees' green behaviors are easily influenced by CSR. Zhang Na et al. (2021) explored the impact of CSR on employees' green behaviors based on the ethical decision-making theory model and found that CSR can positively influence employees' green behaviors [32].

## 4. Conclusion

This paper systematically summarizes the concept of employee green behavior through an in-depth combing of related employee green behavior studies and further proposes the definition of employee green behavior in this paper based on existing theories. At the same time, various types of factors affecting employees' green behavior are meticulously classified and summarized, aiming to provide valuable references and insights for subsequent research. Based on the current theories and research progress, this paper proposes the shortcomings and prospects of the research on employees' green behaviors.

First of all, fewer domestic scholars have systematic and detailed combing of the concept of employee green behavior and the division of dimensions, while foreign scholars have rich research on this concept, suggesting that in the future, we can combine it with the actual situation in China to put forward a more in-depth definition and connotation of employee green behavior and define the scope and level more clearly.

Secondly, the measurement dimensions are enriched to better fit the actual situation of the study and make it more targeted. Domestic research on employees' green behavior is more likely to take the method of a questionnaire survey, the method of determining the influencing factors is more from the existing research, in subsequent research, scholars can consider combining it with the interview method to explore other hidden influencing factors affecting employees' green behavior.

In addition, the existing research on employees' green behavior is relatively general and does not detail whether the factors affecting their green behavior and the intensity of their influence will be different for employees of different enterprises and employees of different job types in the same enterprise, and if they are different, then the enterprises should make a difference in designing incentives for employees' green behavior. When combing through the literature, we found that most of the studies are on the impact of a single variable on employees' green behavior, without considering the interaction between variables and the study of multiple variables on employees' green behavior. Only by fully grasping the mechanism of the influencing factors of employees' green behavior can we better help enterprises implement green practices and promote the green and sustainable development of enterprises.

Finally, most of the existing scales are the research results of foreign scholars, and we have not yet developed a valid scale adapted to Chinese conditions. Therefore, we should be more committed to developing an employee green behavior scale that characterizes Chinese cultural features to fill this gap.

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