



Green Mindfulness, Organizational Ambidexterity and Corporate Sustainable Development Performance

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Abstract. Based on the questionnaire survey data of 432 senior managers in manufacturing industry, this study constructs a theoretical framework of green mindfulness-organizational ambidexterity-sustainable development performance, and explores the mechanism of green mindfulness affecting the sustainable development performance of enterprises. The results of the study found that: green mindfulness has a significant positive impact on corporate sustainable development performance; organizational ambidexterity plays a partially mediating role in green mindfulness and corporate sustainable development performance. Finally, the theoretical contributions and practical contributions of this paper are presented to provide important theoretical implications and practical values for the sustainable development of Chinese enterprises.

Keywords: green mindfulness · organizational ambidexterity · sustainable development performance · manufacturing

1 Introduction

Green mindfulness is a time-tested strategy that may create sustainable competitive advantages for different types of organizations [1]. Exploring the impact of green mindfulness on the sustainable development performance of enterprises is of great significance for enterprise development. In addition, the organizational ambidexterity has received more and more attention, but few studies have involved its ‘bridge’ role between green mindfulness and sustainable development performance.

Therefore, this study adopts resource-based view and dynamic capability theory to investigate the relationship between green mindfulness, organizational ambidexterity and corporate sustainable development performance. The research questions mainly include: (1) How does green mindfulness affect the sustainable development performance of enterprises? (2) Does organizational ambidexterity play a mediating role in the relationship between green mindfulness and sustainable development performance?

2 Theoretical Analysis and Research Hypothesis

2.1 Green Mindfulness and Corporate Sustainable Development Performance

Chen et al. [2] introduced mindfulness into the field of environmental management and proposed the concept of green mindfulness. Green mindfulness refers to a kind of awareness that focuses on the various situations and contents of the organization's environmental information and environmental knowledge. According to the resource-based view, enterprises can fully integrate the knowledge, information and technical resources related to the external environment by improving the level of green mindfulness, so as to improve their capabilities, help them gain core competitive advantages, so as to achieve sustainable development. On the one hand, green mindfulness will increase the environmental sensitivity of enterprises, as well as environmentally friendly systems and policies, thereby increasing the productivity of enterprises in key environmental quality indicators, namely energy consumption, water use, waste generation and recycling [3], and thus achieving environmental performance of enterprises. On the other hand, green mindfulness improves creativity and innovation by actively identifying, collecting and processing information, and helps companies stand out from competitors by providing high-quality products or services and processes, thereby improving corporate economic performance. In summary, H1 is proposed.

H1: Green mindfulness has a positive impact on the sustainable development performance of enterprises.

2.2 The Mediating Role of Organizational Ambidexterity

Organizational ambidexterity refers to the ability of an organization to simultaneously pursue exploration and exploitation [4]. Green mindfulness has the characteristics of environmental sensitivity, internal and external information collection, understanding and processing, and overcoming accidents [5], so as to fully enhance the organization's exploration and utilization ability and realize organizational ambidexterity.

Developing existing capabilities and exploring new capabilities simultaneously is the key to organizational survival, prosperity and sustainable performance [6]. Therefore, some scholars believe that organizations with certain ambidexterity capabilities can gain unique competitive advantages and achieve sustainable performance. For example, Guanjun et al. [9] argue that organizational ambidexterity facilitates the matching of knowledge-seeking strategies with new market demands, which can drive strategic choices for long-term development and enhance sustainable development performance. In summary, H2 was proposed.

H2: Organizational ambidexterity plays a mediating role between green mindfulness and corporate sustainable development performance.

In summary, the following theoretical model is proposed, as shown in Fig. 1.

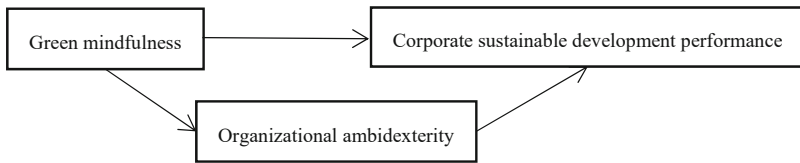


Fig. 1. Research model

3 Research Method

3.1 Variable Measurement

The measurement of green mindfulness mainly draws on the research results of Chen, Yu-Shan et al. [2], including six items, such as ‘organizations can successfully complete the concept of environmental protection’; the measurement of organizational ambidexterity mainly draws on the research results of Del Giudice M et al. [7], including three items, such as ‘the organization regularly stimulates the relevant exploration ability’; the measurement of sustainable development performance mainly draws on the research results of Alraja M N et al. [8], including six items, such as ‘the organization insists on using environmentally friendly materials’. In addition, based on previous studies, the nature of the firm, the age of the firm, and the size of the firm were used as control variables in this study.

3.2 Data Source

For this study, this paper uses a quantitative method of closed questionnaire to collect data. By collaborating with a top market research company in China, we use its database to randomly select manufacturing companies as samples. A total of 432 questionnaires were distributed to 432 manufacturing enterprise managers on the Credamo company platform for two months. Finally, 315 valid questionnaires were collected. The overall recovery efficiency of the questionnaires was 72.9%.

3.3 Common Method Bias Test

This study mainly used SPSS 25.0 and Amos 25.0 software for data analysis and validation. The Harman single factor method was used to test for common method bias, and the results showed that the variation explained by single factor was 28.91% (<40%), so there was no serious common method bias.

Table 1. Correlation coefficient and reliability and validity test of variables

Conception	Cronbach's α	CR	AVE	1	2	3
1. Corporate sustainable development performance	0.926	0.927	0.681	(0.825)		
2. Organizational ambidexterity	0.878	0.880	0.711	.618**	(0.843)	
3. Green mindfulness	0.874	0.876	0.543	.568**	.567**	(0.737)

Note: ** and * indicate the significance level of 5% and 10% respectively, and the value on the diagonal is the square root of AVE.

4 Statistical Result

4.1 Reliability and Validity Test Results

From Table 1, the Cronbach's α and CR of all the constructs were above 0.8, indicating that the internal consistency of the measurement items of the scale was high and had high reliability. The scales used in the study were all based on established scales in the literature, which ensured good content validity. The AVE values of each scale were above 0.5, indicating that the convergent validity of the scale passed the test. All AVE square root values are greater than the correlation coefficient of cross variables, so the discriminant validity of this study also reached the standard.

4.2 Result of Hypothesis Test

Direct effect test. From Table 2, Linear regression was used to test hypothesis 1. Model 1 shows that green mindfulness has a significant positive impact on corporate sustainable development performance ($\beta = 0.730$, $P < 0.001$), assuming that H1 is supported.

Mediated effects were tested, mainly using the mediation test proposed by Baron and Kenny et al. [10] to test hypothesis 2. Model 2 showed that green mindfulness significantly and positively influenced organizational ambidexterity ($\beta = 0.628$, $p < 0.001$). Model 4 indicate that after incorporating green mindfulness, organizational ambidexterity and corporate sustainable development performance into the regression equation simultaneously, green mindfulness still positively affects corporate sustainable development performance ($\beta = 0.326$, $p < 0.001$), but its regression coefficient has decreased. It shows that organizational ambidexterity plays a partial mediating role between green mindfulness and corporate sustainable development performance. Thus, hypothesis 2 is supported. In addition, hypothesis 2 was further tested using Bootstrap method and the results were significant.

Table 2. Direct effect and mediating effect test

Variables	Corporate sustainable development performance	Organizational ambidexterity	Corporate sustainable development performance	Corporate sustainable development performance
	Model 1	Model 2	Model 3	Model 4
Business Nature	-0.003 (-0.047)	-0.205** (-2.614)	0.103 (1.527)	0.074 (1.127)
Firm age	0.181** (2.785)	0.362*** (5.052)	0.122* (1.995)	0.045 (0.726)
Enterprise size	0.131** (2.287)	0.003 (0.047)	0.182** (3.468)	0.130* (2.488)
Green mindfulness	0.730*** (12.202)	0.628*** (7.940)		0.326*** (4.543)
Organizational ambidexterity			0.464*** (10.517)	0.377*** (8.019)
R ²	0.357	0.381	0.432	0.468
F	43.049***	47.696***	59.017***	54.331***

Note: ***, ** and * represent the significance levels of 1%, 5% and 10%, respectively, and the t value is in brackets.

5 Discussion

5.1 Research Conclusions

According to the empirical analysis, the research results are as follows: (1) The higher the level of green mindfulness, the better the corporate sustainability development performance. (2) Organizational ambidexterity plays a partial mediating role between green mindfulness and corporate sustainable development performance. (3) The contribution of green mindfulness to corporate sustainability development performance is particularly prominent in older firms as well as in large-scale firms.

5.2 Contribution and Enlightenment

Theoretical contributions.

This study explores the impact of green mindfulness on corporate sustainability performance through theoretical analysis and empirical testing, and analyzes the mediating role of organizational ambidexterity. It not only enriches the relevant literature, but also reveals the specific paths and process mechanisms by which green mindfulness affects corporate sustainability development performance.

Management implications.

First of all, in order to obtain good organizational ambidexterity and sustainable performance, companies must properly cultivate their green mindfulness and actively

integrate it into their production, design, operation and management processes. Secondly, enterprises should take improving organizational ambidexterity as an important task to prepare for the further improvement of sustainable development performance.

Research limitations and prospects.

First, there are some limitations in the number and scope of samples. The samples are mainly derived from manufacturing enterprises, and the sample size is generally limited. Future studies can further expand the sample size and sources to validate the findings of this paper in a wider sample range. Second, the mediating variables are not unique. Future research can try to introduce other mediating variables, such as organizational resilience, to further enrich the internal mechanism of green mindfulness to improve the sustainable development performance of enterprises.

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