

Original Research Article

The impact of situational factors on green consumption behavior with environmental responsibility as a mediating factor

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Abstract: Under the background of the "dual carbon" goals and sustainable development, exploring the situational and psychological mechanisms influencing residents' green consumption behavior is of significant practical importance. Based on situational theory and the perspective of responsibility ethics, this study constructs a research model in which situational factors serve as the independent variable, environmental responsibility as the mediating variable, and green consumption behavior as the dependent variable, and conducts empirical testing. Questionnaire survey data were collected from residents in multiple regions. The results show that situational factors have a significant positive effect on green consumption behavior; situational factors significantly enhance individuals' environmental responsibility; and environmental responsibility plays a partial mediating role between situational factors and green consumption behavior. The findings indicate that external situations do not directly translate into green consumption behavior, but rather influence consumption decisions by activating individuals' sense of environmental responsibility and prompting them to consider environmental consequences. These conclusions deepen the understanding of the formation mechanism of green consumption behavior and provide practical implications for promoting green consumption through situational design and responsibility activation.

Keywords: situational factors; green consumption behavior; environmental responsibility; mediating effect

1. Problem statement

Against the backdrop of increasingly stringent ecological and environmental constraints, green consumption is regarded as an important micro-level pathway for promoting sustainable development. Compared with relying on institutional constraints or technological substitution, guiding residents to form green choices in daily consumption is more conducive to achieving long-term environmental governance outcomes. Existing studies have pointed out that individuals' recognition of green concepts does not necessarily translate into actual behavior, and an "attitude-behavior gap" is widely observed in the field of green consumption. This suggests that explaining green consumption behavior solely from the perspective of values or attitudes is insufficient^[1].

In recent years, research has increasingly shifted attention to situational factors, emphasizing the role of external environmental cues in shaping individual behavior. Situational elements such as price information, social norms, policy prompts, and information presentation may indirectly influence consumption decisions by affecting individuals' responsibility judgments and moral cognition. Environmental responsibility, defined as individuals' awareness of responsibility for the environmental consequences of their own behavior, is regarded as an important psychological mechanism linking external situations with internal behavioral motivation. Therefore, it is necessary to systematically analyze how situational factors influence green consumption behavior through environmental responsibility.

2. Theoretical basis and research hypotheses

Situational factors refer to the external environmental conditions under which individuals make consumption decisions, including information presentation, social norm cues, and policy prompts. These factors shape

consumption choices by influencing individuals' perceptions and judgments of behavioral consequences. Situational theory suggests that individual behavior is not entirely determined by stable preferences or rational calculation, but rather represents a response to specific situational cues. In the context of green consumption, clear environmental prompts and normative information can enhance individuals' attention to environmental issues, thereby increasing the likelihood of choosing green products or services^[2].

Environmental responsibility refers to individuals' sense of responsibility and moral obligation regarding the potential environmental impacts of their behavior. Previous research indicates that environmental responsibility not only affects attitudes toward environmental issues, but also plays a stable driving role in actual behavioral decision-making. When consumers perceive green consumption as a responsibility that should be fulfilled, their behavior tends to be more consistent and sustainable^[3].

In specific consumption contexts, situational factors are closely related to environmental responsibility. External situational cues emphasize environmental consequences and social expectations, thereby activating individuals' responsibility awareness and encouraging them to consider environmental impacts in consumption decisions. Enhanced environmental responsibility further promotes green consumption behavior. Based on the above analysis, the following hypotheses are proposed:

H1: Situational factors have a significant positive effect on green consumption behavior.

H2: Situational factors have a significant positive effect on environmental responsibility.

H3: Environmental responsibility mediates the relationship between situational factors and green consumption behavior.

3. Research design and data sources

This study employed a questionnaire survey method to collect research data, using individual residents as the unit of analysis to empirically examine the relationships among situational factors, environmental responsibility, and green consumption behavior. The sample was drawn from permanent residents in multiple cities across eastern and central regions, covering a wide range of genders, ages, and income levels, thereby enhancing the diversity of the sample structure and the generalizability of the research findings. Data were collected through a combination of online and offline surveys. Under the conditions of anonymity and voluntary participation, a total of 512 valid questionnaires were obtained.

Regarding variable measurement, situational factors were assessed primarily in terms of the intensity of environmental prompts, perceived social norms, and the presentation of policy-related information, reflecting individuals' overall perception of external situational cues in specific consumption contexts. Environmental responsibility focused on individuals' responsibility cognition and sense of moral obligation regarding the potential environmental impacts of their consumption behavior. Green consumption behavior reflected individuals' actual tendencies to choose green products and services in daily consumption. All variables were measured using five-point Likert scales, and the reliability and validity tests of the relevant scales met the requirements for statistical analysis, making them suitable for subsequent empirical research.

Table 1. Descriptive statistics of main variables (N = 512).

Variable	Mean	Standard Deviation
Situational factors	3.61	0.58
Environmental responsibility	3.74	0.55
Green consumption behavior	3.49	0.62

4. Empirical results analysis

Descriptive statistics indicate that perceived situational factors and environmental responsibility are at a moderate-to-high level, while green consumption behavior is relatively lower, suggesting a gap between cognition and actual behavior. This phenomenon reflects that although most respondents possess a certain level of environmental awareness and responsibility cognition, these have not been fully translated into stable green consumption behavior in specific consumption contexts, confirming the commonly observed "knowledge–action gap" in green consumption.

Regression analysis shows that after controlling for demographic variables such as gender, age, and

income, situational factors have a significant positive effect on green consumption behavior. This indicates that external situational cues play an important role in guiding individuals' green consumption choices. When clear environmental prompts or normative information are present in the consumption environment, individuals are more likely to make environmentally oriented consumption decisions, supporting Hypothesis H1.

After introducing environmental responsibility as a mediating variable, the direct effect of situational factors on green consumption behavior decreases but remains significant, while environmental responsibility has a significant effect on green consumption behavior, indicating a partial mediating effect. Bootstrap mediation analysis further confirms that the indirect effect of situational factors on green consumption behavior through environmental responsibility is statistically significant, thereby supporting Hypotheses H2 and H3.

Table 2. Mediation effect test results.

Model	Situational factors	Environmental responsibility	R ²
Green consumption behavior	0.34**	—	0.29
Green consumption behavior	0.21*	0.41**	0.43

Note: * $p < 0.05$, ** $p < 0.01$.

5. Discussion and conclusion

The results demonstrate that situational factors significantly promote green consumption behavior, indicating that external environmental cues play an important role in guiding individuals' green choices. Further analysis shows that environmental responsibility serves as a key mediating mechanism. That is, situational factors do not directly translate into green consumption behavior, but influence consumption decisions by activating individuals' awareness of responsibility for environmental consequences.

From a mechanistic perspective, when consumers are reminded in specific situations that their behavior may have environmental impacts, they are more likely to perceive green consumption as a responsible choice, and thus tend to make more environmentally oriented decisions when weighing costs and benefits. This finding explains the internal psychological pathway through which situational interventions influence green consumption behavior^[4].

From a practical perspective, the findings provide implications for governments and enterprises seeking to promote green consumption. In policy formulation and market guidance, attention should be paid to the coordination of situational design and responsibility activation. By optimizing information presentation and strengthening social norm cues, consumers can be guided to form stable environmental responsibility awareness, thereby gradually narrowing the "knowledge–action gap" in green consumption^[5].

It should be noted that this study is based on cross-sectional data with a relatively limited regional sample, and the generalizability of the findings requires further verification. Future research may adopt longitudinal tracking or experimental designs to further examine the long-term effects of different situational interventions on environmental responsibility and green consumption behavior^[6].

About the author

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