International Journal of Social Science and Human Research

ISSN (print): 2644-0679, ISSN (online): 2644-0695

Volume 09 Issue 03 March 2026

DOI: 10.47191/ijsshr/v9-i3-92, Impact factor- 8.361

Page No: 2467-2475

The Impact of Green Innovation on Purchase Intention Through Corporate Image and Green Perceived Value: An Experiment in the Food Industry in Vietnam Based on Signaling Theory

Nguyen Thi Viet Ha[1*], Phan Thanh Mai[2], Nguyen Thi Duong[3], Tran Bich Ngoc[4], Nguyen Ha Trang[5], Hoang Thu Phuong[6]

[1,2,3,4,5,6]Banking Academy of Vietnam, ORCID: 0009-0007-4236-432X

ABSTRACT: In the context of complex climate change, the food industry is facing great pressure to transition to sustainable business models. This study aims to examine the impact of Green Innovation (GI) on Purchase Intention (PI) of consumers in the food industry in Vietnam. Based on the foundation of Signaling Theory, the study proposes a structural model that integrates the intermediary role of Corporate Image (CI), and Green Perceived Value (GPV). The data were collected from a survey of 409 consumers in Vietnam's major cities and analyzed using the Partial Least Squared Linear Structure Model (PLS-SEM) method. Experimental results show that Green Innovation has a positive and strong impact on Corporate Image and Green Perceived Value, thereby promoting Purchase Intention. In particular, the study highlights the key role of Corporate Image (CI) and Green Perceived Value (GPV) in transforming positive perceptions Green Innovation into actual Purchasing actions. These findings provide important governance implications for Vietnamese food businesses in optimizing their innovation strategies and transparency of green signals to strengthen trust and create a sustainable competitive advantage.

KEYWORDS: Green Innovation, Corporate Image, Green Perceived Value, Purchase Intention, Food Industry, Signal Theory, Vietnam.

1. INTRODUCTION

In the current era of climate change, sustainable development has transformed itself from a voluntary ethical choice to a core strategic requirement for global economic recovery. Rapid industrialization and globalization have accelerated environmental degradation, prompting a definitive shift to green growth. According to the World Economic Forum (2024), climate change, if left unchecked, could erode the global average income by up to 20%. Developing countries, especially Vietnam, are facing disproportionate risks; Without strong intervention, economic losses in Vietnam are expected to account for between 12% and 14.5% of GDP annually by 2050. In this precarious context, the food industry — with its large resource-intensive characteristics — is under intense scrutiny and forced to adopt Green Innovation (GI) as a survival mechanism rather than just a complementary social responsibility (CSR) activity.

Despite the strategic shift to GI, businesses still encounter a significant barrier: the "green gap" in consumer behavior, arising from deep information asymmetry. In the food sector, consumers often lack the technical capacity to verify corporate sustainability commitments, leading to increased skepticism towards "greenwashing" practices. This study applies Signaling Theory to resolve this contradiction, considering GI as a "high-quality signal" emitted by businesses to convey environmental integrity and operational capacity. By implementing tangible innovations in products and processes, food businesses can bridge the information gap, broadcast reliable signals that help consumers reduce ambiguity, and establish cognitive trust.

The process of transforming green signals into actual behavioral outcomes is theorized through two key cognitive pathways: Corporate Image (CI) and Green Perceived Value (GPV). GI plays a dual role: on the one hand, it improves the image of the business by positioning the company as a socially responsible entity; on the other hand, it enhances GPV by providing customers with a net benefit that goes far beyond traditional product attributes, including health benefits and ecosystem conservation. The resonance between a prestigious reputation and superior perceived value is assumed to be the main driver of Purchase Intention (PI). However, the interaction between these variables has not been fully exploited in the context of emerging markets in Southeast Asia.

While the existing literature has looked at the components of green marketing, significant gaps remain. Most of the empirical evidence is derived from developed economies, leaving a huge gap in understanding the dynamics of green food consumption in fast-moving markets such as Vietnam. Furthermore, there is currently a lack of integrated studies that simultaneously look at the

mediating role of CI and GPV through the specific lens of Signal Theory in the risky food industry. This study fills those gaps by investigating how green signals drive the purchase intentions of 409 Vietnamese consumers through the Linear Structure Modeling (PLS-SEM) method.

This research yields important theoretical contributions by elucidating the signaling mechanisms of green innovation in a high-risk consumer category. In practical terms, the study provides a strategic roadmap for Vietnamese food producers, demonstrating how to leverage substantive green investments to mitigate consumer skepticism, optimize brand value, and ensure a sustainable competitive advantage in an increasingly environmentally conscious market.

2. LITERATURE REVIEW AND HYPOTHESES

2.1 Singnaling theory

In a competitive food market environment, information asymmetry between businesses and consumers is a classic challenge. According to Spence (1973), Signal Theory explains how parties address information shortages through the transmission of observable signals. In this study, the theoretical framework consists of three core components:

The Signaller: Food businesses possess internal information about the sustainability characteristics of their products that cannot be directly observed by customers (e.g., low-emission production processes, organic raw material sources).

The Signal: Green Innovation is considered a "high-quality signal". Because green innovation requires significant investment in capital and technology, it becomes a signal that is difficult to replicate by businesses that practice "greenwashing".

The Receiver: Consumers receive these signals to assess the integrity and capacity of the business. A strong green signal reduces ambiguity and skepticism, thereby adjusting the customer's perception of the organization's value and image.

2.2 Green Innovation (GI)

Green innovation (GI) has become a central concept in sustainability-oriented business research. It generally refers to innovations in products, processes, or managerial practices that reduce environmental harm and improve ecological performance throughout the product life cycle (Chen et al., 2006; Dangelico & Pujari, 2010). Unlike conventional innovation, green innovation simultaneously addresses environmental protection and economic value creation, allowing firms to pursue sustainability while maintaining competitiveness (Porter & van der Linde, 1995).

In the food industry, green innovation is particularly important because food production systems are closely associated with environmental impacts such as resource depletion, greenhouse gas emissions, and waste generation (Hartmann & Siegrist, 2017). Sustainable food production technologies, eco-friendly packaging, and environmentally responsible supply chains are therefore becoming critical sources of competitive advantage (Grunert, Hieke & Wills, 2014).

However, the benefits of green innovation are not automatically realized. Consumers may have difficulty evaluating the environmental attributes of products, which creates information asymmetry between firms and consumers (Delmas & Burbano, 2011). Consequently, the effectiveness of green innovation in influencing consumer behavior depends largely on how these initiatives are perceived and interpreted by the market. In this study, GI is seen as a higher-order construct that includes product and process improvements, serving as the main "quality signal" that businesses send to the market.

2.3 Development of research hypotheses

Green Innovation and Corporate Image (H1)

Based on Signal Theory, green innovation (GI) serves as a tangible demonstration of the organization's ethical commitment and innovation capacity. When a food business invests in low-emission processes or bio-packaging, they not only improve their environmental performance, but they also send positive signals to position themselves as a socially responsible actor. Previous studies have provided strong empirical evidence for this relationship. Specifically, Chen (2008) argues that green initiatives help businesses accumulate sustainable "image capital", creating differentiation from traditional competitors. At the same time, Xie et al. (2019) emphasized that green process innovation helps strengthen public confidence in the integrity of enterprises. Moreover, in the context of emerging markets, Chuang and Huang (2018) show that sustainable innovative solutions help neutralize negative stereotypes about pollution, thereby enhancing brand position and reputation in the minds of customers. From the above arguments, the following hypothesis is proposed:

H1: Green innovation has a positive impact on corporate image

Green Innovation and Green Perceived Value (H2)

The perceived green value (GPV) reflects the consumer's assessment of the net benefits received from a product based on environmental standards. The implementation of GI helps businesses increase their use value by providing cleaner and safer food products. According to Chen and Chang (2012), green innovation reduces the "trade-off" between personal interests and ecological responsibility, thereby optimizing the perceived value of customers. Sangroya and Nayak (2019) add that when consumers perceive substantive innovation in products, they feel the dual benefits of both health and ecosystem protection. The study by Koller et al.

(2011) also confirmed that signals from green innovation increase "performance value", making consumers feel that the cost is completely worth the contribution to the environment. Therefore, the study recommends:

H2: Green innovation has a positive impact on green perceived value.

Corporate Image and Purchase Intention (H3)

In the food industry, where products have characteristics that directly affect health, corporate image (CI) serves as an important guarantee of quality. A reputable brand image reduces perceived risk and promotes customer choice trends. Wang et al. (2021) pointed out that CI is the strongest predictor of purchase intent in the organic food market because it builds a strong foundation of trust. Similarly, Ahmad and Zhang (2020) assert that in transitioning economies, corporate reputation is often the decisive factor driving green consumption behavior. Furthermore, based on the Theory of Rational Action (TRA), a positive attitude toward the corporate image will directly translate into purchasing action (Zeithaml, 1988). So, the following hypothesis is given:

H3: Corporate image has a positive impact on Purchase Intention

Green Perceived Value and Purchase Intention (H4)

Social exchange theory suggests that customers tend to make purchases when the perceived benefits outweigh the costs. In the field of sustainable consumption, GPV is a key driver of behavioral intent. Zeithaml (1988) in his classic study of value has asserted that purchase intent is an inevitable consequence of the valuation process. In the context of green food, Chen and Chang (2012) have empirically demonstrated that the perceived value of the environment is a premise that directly triggers customers' desire to own the product. The study by Sangroya and Nayak (2019) also agrees that as the perceived green value increases, the hesitancy to pay for products with a higher price (premium) decreases. Therefore, the study recommends:

H4: Green perceived value has a positive impact on Purchase Intention

The Mediating Role of Corporate Image (H5)

Although prior studies suggest that green innovation can enhance consumer evaluations of firms, its influence on consumer purchasing behavior may not occur directly. Instead, the effect of green innovation is often transmitted through intermediate cognitive mechanisms that shape how consumers interpret corporate sustainability initiatives. From the perspective of Signal Theory, firms communicate unobservable qualities such as environmental responsibility through observable signals (Spence, 1973). Green innovation represents a visible and credible signal because it requires significant investments in sustainable technologies, product development, and environmentally responsible production processes. When consumers observe such initiatives, they may interpret them as evidence that the firm is genuinely committed to environmental protection (Connelly et al., 2011). Therefore, green innovation may enhance consumers' purchase intentions indirectly by strengthening corporate image.

H5: Corporate image mediates the relationship between green innovation and green purchase intention.

The Mediating Role of Green Perceived Value (H6)

While green innovation can influence consumers' perceptions of firms and their products, its effect on purchase intention may not always be direct. In many cases, consumers first evaluate the benefits associated with environmentally friendly innovations before deciding whether to support a product or brand. One important mechanism through which green innovation may influence consumer behavior is green perceived value. Green perceived value represents consumers' overall assessment of the environmental benefits associated with a product relative to the costs or sacrifices required to obtain it (Chen & Chang, 2012). This concept extends traditional value theory by incorporating environmental considerations into consumer evaluations. In sustainability-oriented markets, consumers increasingly consider ecological benefits when assessing product value (Koller et al., 2011). From the perspective of Signaling Theory, green innovation can function as a signal that communicates valuable environmental attributes to consumers. Because many environmental characteristics of products—such as reduced emissions, sustainable sourcing, or eco-friendly production processes—are difficult to observe directly, consumers rely on observable signals provided by firms to infer these benefits (Delmas & Burbano, 2011). Investments in green innovation therefore help reduce information asymmetry by providing credible indications of environmental value. Synthesizing these arguments, the study proposes:

H6: Green perceived value mediates the relationship between green innovation and green purchase intention.

2.4. Proposed research model

Based on the synthesis of foundational theories and established hypotheses, the study proposes a structural model to explain the mechanism of impact of green signals on consumer behavior. This model takes Green Innovation as the main independent variable, acting as an input "signal" in the process of transmitting the message of the business. The model structure is established in the form of cognitive layering, in which signals from product and process innovation will directly impact two key cognitive components: Corporate Image and Green Perceived Value.

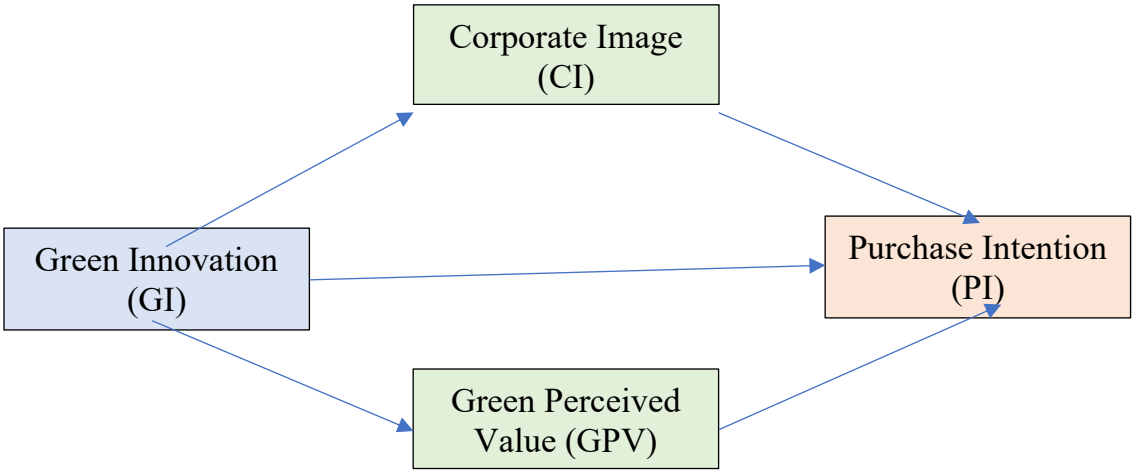


Figure 1: Concept Model

This model not only tests the direct impacts between variables but also allows the analysis of indirect impacts through the linear structure modeling method (PLS-SEM), thereby clarifying the roadmap from implementing environmental initiatives to driving sustainable sales for food businesses in Vietnam.

3. METHODOLOGY

3.1. Sample Design and Data Collection Process

The study uses quantitative methods through online and direct surveys targeting consumers in major cities of Vietnam (Hanoi, Ho Chi Minh City). Ho Chi Minh City, Da Nang) have consumed green food in the last 6 months. The sample size was determined based on a combination of many rigorous standards: the "10 times the number of paths" rule by Hair et al. (2017), statistical strength analysis via G*Power 3.1 ($f^2 = 0.15$; \alpha = 0.05; $\beta = 0.95$) suggesting a minimum of 119 samples (Faul et al., 2009), and the 10:1 observed variable ratio by Bentler and Chou (1987) corresponds to at least 180 samples. The sample size determination team conducted 450 surveys obtained using a convenient selective sampling method, and the data from the validity of the results were retained for analysis, ensuring optimal representativeness and statistical reliability for complex tests.

3.2. Measurement Scales

The variables in the model are measured through multi-item scales that have been validated and adjusted to suit the context of the Vietnamese food market, using a 5-level Likert scale (from 1: Strongly disagree to 5: Strong agree). Specifically: Green Innovation (GI) consists of 6 questions inherited from Chen et al. (2006); Business image (CI) includes 4 items from Aaker (1996); The Green Perceived Value (GPV) consists of 5 items from Chen and Chang (2012); and Purchase Intention (PI) is measured by 3 questionnaires based on Zeithaml (1988) research. The inheritance of these prestige scales ensures the content validity of the research model.

3.3. Data analysis methods

The study applied the technique of Partial Least Squared Linear Structure Model (PLS-SEM) with the support of SmartPLS 4.0 software. This method was chosen due to its superiority in handling models with multi-layered intermediate structures and not strict requirements for standard distribution of data (Hair et al., 2017). The analysis process is carried out through two stages: (1) Evaluation of the measurement model to determine reliability (Cronbach's Alpha, CR) and convergence and differential values (AVE, HTMT); (2) Evaluate the structural model through bootstrapping with 5,000 iterative samples to test the path coefficients β), explanatory level (R^2) and predictability (Q^2).

4. RESULTS

4.1 Sample description

After data collection and cleaning, the study collected 409 valid survey tickets. This figure not only exceeds the minimum thresholds mentioned above, but also ensures a high representation of the food consumer community in Vietnam, allowing the analysis results to achieve optimal reliability and forecast value in the SEM model. Finally, To eliminate concerns about common method bias that are common in survey studies, Harman's single-factor testing was performed, with the first factor of interpretation being lower than 50% of the total variance, confirming the objectivity of the data collected.

Descriptive statistical analysis was performed on 409 valid samples to provide an overview of the demographic characteristics of the survey subjects. The results (Table 1) show a relatively balanced distribution and are representative of the segment of modern food consumers in Vietnam's major cities.

In terms of gender, women make up a higher proportion at 58.7%, which is consistent with the fact that women are often the main decision-makers in family food shopping. In terms of age, the 25- to 40-year-old group dominates (45.2%), which is a group of customers of the Millennial generation — those who are highly educated and aware of environmental and health issues. In terms of education level, the majority of respondents have a university or postgraduate degree (accounting for 72.4%), indicating that the ability to identify and evaluate "green signals" of the research sample is reliable. In terms of income, the segment from 15 to 30 million VND/month accounts for the largest proportion (38.6%), reflecting the group of customers who can afford green food products that have higher prices than traditional products.

Table 1. Sample Characteristics

Characteristics	Classification	Frequency	Rate (%)
Gender	Male	169	41.3%
	Female	240	58.7%
Age	18 - 24 years old	98	24.0%
	25 - 40 years old	185	45.2%
	Over 40 years old	126	30.8%
Education	Under University	113	27.6%
	Undergraduate	235	57.5%
	Postgraduate	61	14.9%
Income (VND/month)	Less than 15 million	105	25.7%
	15 - 30 million	158	38.6%
	Over 30 million	146	35.7%

The demographic data shows that the sample of the study focuses on consumers with knowledge and economic potential—a key target group of the sustainable food industry. The diversity in age and income distribution helps to ensure that the study results are highly generalized and are not skewed due to the influence of a small group of consumers. This provides a solid foundation for the next steps of measurement model analysis and structural modeling.

4.2. Measurement Model Evaluation

To ensure the scientific validity of Hair et al. (2017), the measurement model is evaluated through three main aspects: intrinsic consistency reliability, convergence value, and differential value.

4.2.1. Reliability and Convergence Value

The results of the analysis (Table 2) show that all the latent variables are highly reliable. The Cronbach's Alpha coefficient and Composite Confidence (CR) of all structures range from 0.896 to 0.931, far beyond the minimum threshold of 0.7. In terms of convergence values, the Factor Loadings of the observed variables are greater than 0.752. At the same time, the Extracted Mean Variance (AVE) of the variables is all above the 0.50 threshold, confirming that more than 50% of the volatility of the observed variables is explained by the corresponding latent variable.

Table 2. Measurement test results

Variables (Constructs)	Observed Variables (Items)	Mean	Std. Dev	Loadings	VIF	Cronbach's Alpha	CR	AVE
Green Innovation (GI)	6	3,82	0,74	0,752 – 0,884	1,421	0,912	0,931	0,693
Corporate Image (CI)	4	4,05	0,68	0,789 – 0,865	1,854	0,845	0,896	0,682
Perceived Green Value (GPV)	5	3,91	0,71	0,801 – 0,892	1,922	0,887	0,915	0,685
Purchase Intention (PI)	3	4,12	0,65	0,854 – 0,912	1,768	0,876	0,923	0,801

The analysis results in Table 2 show that the data are highly reliable and valid. The Mean values of the variables ranged from 3.82 to 4.12, indicating that consumers tend to evaluate the green innovation efforts of businesses positively. In terms of multilinear verification, all VIF values ranged from 1.42 to 1.92, significantly lower than the strict threshold of 3.3 (Hair et al., 2017), confirming that there was no multi-linear phenomenon that skewed the model results

4.2.2. Discriminant Validity

The discriminatory value is verified to ensure each latent variable is unique and statistically distinct from the rest. The study used two rigorous criteria: Fornell-Larcker and HTMT (Heterotrait-Monotrait Ratio).

Fornell-Larcker Criterion: The square root of the AVE of each variable (located on the table 3 diagonal) is greater than the correlation coefficients between that variable and other variables in the model. HTMT Index: All HTMT values are below the threshold of 0.85 (Henseler et al., 2015), confirming the perfect differentiation between measurement structures.

Table 3. Fornell-Larcker Criterion

Variable	GI	CI	GPV	GT	PI
GI	0.832				
CI	0.542	0.826			
GPV	0.612	0.487	0.828		
GT	0.456	0.592	0.534	0.809	
PI	0.398	0.612	0.587	0.645	0.895

(Note: The values in bold on the diagonal are the square root of AVE)

With the above standard indicators, the measurement model is confirmed to be highly valuable and reliable. This allows us to proceed to the next step of evaluating the structural model to test the research hypotheses proposed.

4.3. Structural Model Evaluation and Hypothesis Testing

After confirming that the measurement model achieves the required reliability and value, the structural model is evaluated through the Bootstrapping technique with 5,000 iterative samples to test the statistical significance of the relationships.

The strength of the structural model is reinforced through the values of R^2 and Q^2. The R^2 (Determination Coefficient) indicator is used to evaluate the extent to which independent variables are interpreted for dependent variables.

The R^2 value for corporate image is 0.41, indicating that green innovation explains 41% of the variance in corporate image. The R^2 value for green perceived value is 0.46, suggesting that green innovation accounts for 46% of the variance in consumers' perceptions of environmental value. The R^2 value for green purchase intention is 0.58, indicating that corporate image and green perceived value jointly explain 58% of the variance in consumers' purchase intentions. These values suggest that the proposed model has satisfactory explanatory power.. According to Hair et al. (2017), this level is considered a moderate to fair explanation in consumer behavior studies.

In addition, the values of Q^2 (tested by the blindfolding technique) of the dependent variables were greater than 0, indicating that the model has good out-of-sample forecasting capacity (Hair et al., 2017). This confirms that the model has high predictive relevance, meaning that the study's findings are not only true to the current model, but also have the ability to predict behavior for similar audiences in the future.

4.3.1. Results of direct impacts

The results of the analysis (Table 4) show that all hypotheses of direct impact (H1, H2, H3, H4) are supported with a significance level $p < 0.001$. Specifically, Green Innovation (GI) has the strongest positive impact on Green Perceived Value (GPV) ($\beta = 0.612$) and Corporate Image (CI) ($\beta = 0.542$). This proves that green innovation signals are a key driver of customer awareness. Next, both CI and GPV significantly boosted Purchase Intention (PI), with impact factors of 0.385 and 0.421, respectively.

Table 4. Results of testing of direct impact

Hypothesis	Relationship	β Factor	T-value	P-value	Conclusion
H1	Green Innovation -> Corporate Image	0.542	12.452	0.000	Accept
H2	Green Innovation -> Green Perceived Value	0.612	15.124	0.000	Accept
H3	Corporate image -> Purchase intention	0.385	8.634	0.000	Accept
H4	Perceived Green Value -> Purchase Intention	0.421	9.872	0.000	Accept

The results in Table 4 show that the relationship between Green Innovation (GI) and cognitive variables is very significant. GI has the strongest impact on the Green Perception Value (GPV) ($\beta = 0.612$, $p < 0.001$), which strongly supports the H2 hypothesis. According to Cohen's (1988) standard, the effect size (f^2) of this relationship is 0.458 (the large level), indicating that GI is a key predictor of perceived value. Similarly, the impact of GI on Corporate Image (CI) ($\beta = 0.542$, $p<0.001$, $f^2 = 0.382$) also reached a high level of statistical significance, accepting H1. This confirms that green innovation signals in the food industry could "reduce noise" information, helping to reshape the position of businesses in the minds of customers.

For behavioral intention, both CI ($\beta = 0.385$, $p < 0.001$) and GPV ($\beta = 0.421$, $p < 0.001$) have a positive impact on Purchase Intent (PI), accepting H3 and H4. Notably, GPV has a higher impact weighting than CI, suggesting that food consumers in Vietnam prioritize actual health and environmental benefits (value core) rather than the overall reputation of the business when making green purchasing decisions.

4.3.2. Results of mediating effects

Table 5. Mediation Effects Analysis Results

Intermediate route	Indirect Impact (β)	T-value	P-value	95% Confidence Interval
GI -> CI -> PI	0.209	5.824	0.000	[0.142, 0.285]
GI -> GPV -> PI	0.258	6.452	0.000	[0.185, 0.342]

5. DISSCUSION AND MANAGEMENT IMPLICATIONS

The results of the study have provided an insight into the mechanisms of communication between food businesses and consumers through the lens of Signaling Theory. The relationship between variables not only confirms the premise theories but also points out the notable peculiarities in the Vietnamese market.

The role of Green Innovation as a strategic signal

The results show that Green Innovation (GI) has a strong impact on Corporate Image (CI) and Green Perceived Value (GPV), supporting the H1 and H2 hypotheses. This result is similar to the research of Chen (2008) and Xie et al. (2019), which asserts that GI is a "quality signal" that is difficult to imitate, helping businesses get rid of the equation with competitors who carry out "greenwashing".

However, an interesting difference is that in Vietnam, the impact of GI on GPV ($\beta = 0.612$) is significantly higher than CI ($\beta = 0.542$). This shows that in the food industry, consumers tend to value direct benefits (such as safety, nutrition from product innovation) rather than the abstract reputation of the organization. This finding expands on the argument of Chuang and Huang (2018) that in emerging markets, "substantive signals" have a higher weight than "symbolic signals".

Mechanisms that drive Purchase Intention

The H3 and H4 hypotheses are accepted, confirming that both the image and the perceived value are the direct premise of Purchase Intent (PI). This result reinforces Zeithaml's (1988) theoretical framework of the value-behavior chain. Notably, when compared to Ahmad and Zhang's (2020) study in developing countries, our results show a uniform correlation: Vietnamese consumers are shifting from price-based purchases to purchases based on "altruistic values" and ecological responsibility. The synergy between a reputable CI and an outstanding GPV creates a double thrust, helping to minimize the perceived risks in the consumption of green food.

In the context of Vietnam's food market, which has many concerns about food safety and hygiene and the ambiguity of "clean" labels, building trust through green innovation signals is actually the only way to maintain sustainable purchasing intentions. Compared to the study by Ng et al. (2019), our findings highlight that without trust, even a good corporate image cannot be converted into revenue, because modern consumers are wary of media messages that lack factual evidence.

The Mediating Role of Corporate Image and Green Perceived Value

The empirical results confirm that the impact of green innovation (GI) on purchase intention (PI) does not occur directly but is transmitted through two key cognitive mechanisms: Corporate Image (CI) and Green Perceived Value (GPV). From the perspective of Signaling Theory, the mediating role of CI (H5) with an indirect effect of $\beta = 0.209$ demonstrates that substantive investments in sustainable technologies and processes serve as tangible evidence of an organization's ethical commitment. This high-quality signal helps reduce consumer ambiguity, neutralizes negative stereotypes about pollution, and allows the firm to accumulate "image capital" that differentiates it from competitors engaged in symbolic greenwashing. Simultaneously, GPV exhibits a stronger mediating influence (H6) with an indirect effect of $\beta = 0.258$. This reinforces the argument that GI enables consumers to clearly identify the net environmental and health benefits relative to the costs incurred, thereby triggering the desire to own the product.

In the specific context of the Vietnamese food industry—where consumers often maintain high skepticism toward eco-labels—the fact that both CI and GPV act as mediators indicates that GI influences behavior through both "image-based signals"

and "substantive signals". However, the higher weight of the GPV pathway reflects a critical characteristic of this emerging market: customers prioritize tangible, self-oriented benefits and direct ecological impacts over abstract brand messages. This proves that in Vietnam, green innovation is not merely a reputation-positioning strategy but an essential tool to bridge the "green gap" by providing substantive values. By effectively navigating these mediating paths, food enterprises can overcome information asymmetry and transform green perceptions into sustainable purchasing actions.

Theoretical Contributions

Unlike studies in developed economies where GI is often seen as an industry standard, in Vietnam, GI remains an outstanding competitive advantage. By integrating Signaling Theory to explain the dual roles of CI and GPV, this research offers a new frame of reference for understanding consumer behavior in environments characterized by high information asymmetry. The transition from "Signals" to "Perception" and finally to "Behavior" provides a robust multitiered structural model for future sustainability research in emerging Southeast Asian markets.

Managerial Implications

From the empirical results, the study proposes a number of strategic directions for food managers in Vietnam.

Optimize the "Substantive Signal": Since GPV has a stronger impact on PI than CI, businesses should focus their communication on the practical benefits that green innovation brings to personal health (chemical-free, more nutritious food) and the environment (packaging that reduces plastic waste). Instead of just promoting a generic image, let's be specific about green indicators on packaging and branding.

Synchronous investment in products and processes: Green innovation needs to be implemented comprehensively. Packaging (product) improvements must go hand in hand with energy optimization and emission reduction in the factory (process) to create a consistent and responsible corporate image.

6. CONCLUSION

The study has completed the objective of examining the mechanism of impact of Green Innovation (GI) on Purchase Intention (PI) in the food industry in Vietnam through the lens of Signaling Theory. Results from 409 survey samples confirm that GI is not only a technical endeavor but also a powerful strategic communication tool. By sending signals about product and process improvement, businesses can significantly improve their Corporate Image (CI) and Green Perceived Value (GPV).

Despite the important results, the study still has some limitations. First, convenient sampling methods may not cover all demographic groups in rural areas. Second, the new study focuses only on "Purchase Intent" rather than "Actual Behavior". Future studies may expand the scope by use experimental design to test the actual behavior change when consumers are exposed to different types of green signals. Add regulatory variables such as "Price Sensitivity" or "Greenwashing Perception" to deepen barriers to sustainable food consumption.

REFERENCES

1) Aaker, D. A. (1996). Measuring brand equity across products and markets. *California Management Review*, *38*(3), 102–120.
2) Ahmad, W., & Zhang, Q. (2020). Green purchase intention: Effects of electronic word of mouth and environmental awareness. *Journal of Cleaner Production*, 267, 122053.
3) Bentler, P. M., & Chou, C. P. (1987). Practical issues in structural modeling. *Sociological Methods & Research*, *16*(1), 78–117.
4) Chen, Y. S. (2008). The driver of green innovation and green image – green core competence. *Journal of Business Ethics*, *81*(3), 531–543. https://doi.org/10.1007/s10551-007-9522-1.
5) Chen, Y. S. (2010). The drivers of green brand equity: Green brand image, green satisfaction, and green trust. *Journal of Business Ethics*, *93*(2), 307–319.
6) Chen, Y. S., & Chang, C. H. (2012). Enhance green purchase intentions: The roles of green perceived value, green perceived risk, and green trust. *Management Decision, 50*(3), 502–520. https://doi.org/10.1108/00251741211216250.
7) Chen, Y. S., Lai, S. B., & Wen, C. T. (2006). The influence of green innovation performance on corporate advantage in Taiwan. *Journal of Business Ethics*, *67*(4), 331–339.
8) Chuang, S. P., & Huang, S. J. (2018). The effect of environmental corporate social responsibility on environmental performance and business competitiveness: The mediation of green innovation. *Corporate Social Responsibility and Environmental Management*, *25*(6), 1147–1159.
9) Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, *41*(4), 1149–1160.
10) Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2nd ed.). Sage Publications.

11) Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, *43*(1), 115–135.
12) Koller, M., Floh, A., & Zauner, A. (2011). Further insights into perceived value and consumer loyalty: A "green" perspective. *Psychology & Marketing*, *28*(12), 1154–1176.
13) Konuk, F. A. (2015). The role of store image, product self-congruity and perceived value on consumer's purchase intentions for organic foods. *British Food Journal*, *117*(5), 1572–1586.
14) Martinez, P. (2015). Customer loyalty: Exploring its antecedents from a green marketing perspective. *International Journal of Contemporary Hospitality Management*, *27*(5), 896–917.
15) Ng, M. F. Y., Law, M., & Zhang, S. Q. (2019). Predicting purchase intention of eco-friendly products: The roles of environmental concern and green trust. *Journal of Cleaner Production*, 221, 1034–1043.
16) Sangroya, D., & Nayak, J. K. (2019). Factors influencing buying behaviour of green energy consumers. *Journal of Cleaner Production*, 211, 1471–1482.
17) Spence, M. (1973). Job market signaling. *The Quarterly Journal of Economics*, *87*(3), 355–374.
18) Wang, J., Liu, H., & Wang, S. (2021). Understanding the purchase intention of organic food: The mediating role of environmental awareness. *Food Control*, 125, 108031.
19) World Economic Forum. (2024). *The Global Risks Report 2024*. World Economic Forum Geneva.
20) Xie, X., Huo, J., & Zou, H. (2019). Green process innovation, green product innovation, and corporate financial performance: A content analysis method. *Journal of Business Research*, 101, 697–706.
21) Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *Journal of Marketing*, *52*(3), 2–22.

There is an Open Access article, distributed under the term of the Creative Commons Attribution – Non Commercial 4.0 International (CC BY-NC 4.0) (https://creativecommons.org/licenses/by-nc/4.0/), which permits remixing, adapting and building upon the work for non-commercial use, provided the original work is properly cited.