

## **Interpretation and Ambiguity of Sustainability Symbols in the Malang Hospitality Industry: A Peircean Semiotic Approach**

Benita Situmorang, Universitas Brawijaya, Indonesia  
Maulina Pia Wulandari, Universitas Brawijaya, Indonesia  
Bambang Dwi Prasetyo, Universitas Brawijaya, Indonesia  
Moch. Syahri, Universitas Negeri Malang, Indonesia

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### **Abstract**

This study examines how sustainability symbols are interpreted and misinterpreted in the Malang hospitality industry through the lens of Peircean semiotics. Using a qualitative approach, this study explores (1) how hotel guests from diverse cultural and educational backgrounds interpret these symbols, and (2) what factors contribute to ambiguity of meaning. Data were collected through field observations, in-depth interviews, and a review of hotel policy documents. The analysis applied Peirce's triadic model (representamen, object, and interpretant) to trace how meaning emerges in context. Results showed wide variation in interpretation, influenced by guests' cultural values, environmental awareness, and the clarity of hotel communication. Ambiguity often stems from generic symbol design, limited narrative support, and the risk of greenwashing. This study highlights the need for culturally responsive and educational visual strategies to enhance the authenticity and effectiveness of sustainability communication. These findings provide practical recommendations for hotel managers and input for the development of national policies on sustainability standards in Indonesia's hospitality industry.

*Keywords:* symbols of sustainability, hospitality industry, Peirce's semiotics, cultural interpretation, visual communication

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## Introduction

Sustainability practices have become a major focus in the hospitality industry. More and more hotel guests are looking for accommodations with a strong commitment to sustainability, whether in energy management, waste reduction, or social responsibility (Deri et al., 2024). As part of this trend, many hotels are adopting environmentally friendly marketing strategies to enhance their brand image and attract environmentally conscious consumers (Misik & Nagy, 2025). However, the challenge lies in ensuring that these sustainability communication strategies are understood authentically and do not cause confusion. Many communication strategies fail to convey their message because the message delivered does not match the intention, even creating negative perceptions (Mirzaghaev & Huseynova, 2024). In practice, the phenomenon of greenwashing—the manipulative use of environmental symbols and language—often causes hotel guests to doubt the hotel's genuine commitment to sustainable practices (Preisler Coats et al., 2025). On the other hand, the phenomenon of greenhushing occurs when hotel management chooses not to publicize their sustainable initiatives for fear of being perceived as excessive (Ettinger et al., 2021). This can be an obstacle in the development of sustainable strategies and the relationship between hotel management and hotel guests.

The success of a sustainable communication strategy is not only determined by the message conveyed, but also by how that message is interpreted by audiences with diverse backgrounds. A communication study in Asia explains that sustainable communication is more meaningful when understood as a relational process of cross-cultural dialogue. The use of local stories makes communication two-way, and an approach that was originally instructive can become collaborative (Gabai, 2025). In addition, authenticity and transparency in communication are also prerequisites for the success of sustainable communication strategies. A study shows that the implementation of environmentally friendly marketing has a positive impact on perceived benefits, company image, trust, and loyalty related to the hospitality industry. It also shows that younger generations, especially Millennials and Generation Z, are more likely to appreciate sustainability initiatives, making them an important target for hotels that want to enhance their brand image through environmentally friendly practices (Brañes et al., 2025). These findings are also consistent with other findings that reveal that some sustainability practices carry the risk of greenwashing, while others are appreciated by guests but undercommunicated (greenhushing) (Seyfi et al., 2025).

These phenomena indicate problems with meaning and interpretation in sustainability communication in the hospitality sector. This means that the success of a message depends not only on marketing strategies, but also on how sustainability symbols such as leaf images, water icons, or “eco-friendly” labels are interpreted by hotel guests (Frandsen & Johansen, 2020). This is where the main problem raised in this study lies, namely that sustainability communication is semiotic in nature, meaning that the process of exchanging signs and meanings can be influenced by the background of the recipient's region of origin and education (Alsaati et al., 2020; Bordian et al., 2023). On the other hand, previous studies have focused more on the effects of eco-friendly communication on consumer perceptions or corporate brand image. However, very few have explored how the process of interpreting sustainability symbols occurs in the minds of hotel guests based on their regional background and education (Gaspar Ferreira & Fernandes, 2022; Rahman & Nguyen-Viet, 2023; Tu et al., 2024). In this context, there is an urgent need to understand the interpretation and ambiguity of sustainability symbols themselves, as these two factors are thought to influence the formation of meaning that can determine the effectiveness of sustainability communication (Bausch et al., 2021; Moscardo, 2022).

The city of Malang, Indonesia, for example, is known as a rapidly developing tourist destination and home to various hotels that have begun to implement the concept of eco-hospitality. This city was chosen as the research location because of its high environmental urgency. According to data, the volume of waste produced in Malang reached 731.29 tons per day in 2024 (PPN/Bappenas, 2023). This waste is classified into two types, namely household waste and non-household waste, which includes waste from shops, offices, schools, markets, roads, hotels, restaurants, and public facilities. Alarmingly, plastic waste is recorded as the second largest contributor. This indicates that activities in the hospitality and tourism sector, including hotels, contribute to environmental problems, especially in the form of single-use plastics.

The object of this study is the Grand Mercure Malang Mirama Hotel, which actively uses sustainability symbols in various public spaces and promotional materials. These symbols are intended to instill ecological values and raise guests' awareness of environmentally friendly practices. However, the extent to which the message is understood in accordance with the hotel's communicative intent remains an open question. In practice, guests with different educational backgrounds and experiences are likely to have different interpretations of the same sign (Ásványi & Chaker, 2023; Julião et al., 2025). For example, a leaf sign may be interpreted as a moral representation of environmental concern by highly educated guests, but only as a decorative ornament by other guests. These differences give rise to ambiguity of meaning, where the same symbol elicits diverse interpretations depending on the cognitive framework and regional background of the recipient.

Based on this, this study aims to explore the process of interpreting sustainability symbols by hotel guests based on their cultural and educational backgrounds. It also aims to identify the visual elements and communication contexts that contribute to the emergence of ambiguity or misunderstanding of the meaning of symbols. Charles Sanders Peirce's semiotic approach is used because it has the ability to explain the triadic relationship between signs (representamen), referred objects (objects), and meanings formed in the minds of recipients (interpretants) (Schmidt, 2022; Zhang & Sheng, 2017). By focusing on the process of semiosis that occurs between visual symbols and the interpretive experiences of guests, this study not only contributes to the development of sustainability communication studies in Indonesia, but also enriches the global discourse on how visual signs can be a bridge or an obstacle in conveying sustainability messages in the hospitality industry.

## Literature Review

### Interpretation, Semiosis, and Ambiguity

Visual communication is a complex and multi-layered process, as it involves a system of signs and codes that need to be understood contextually. In semiotics, each visual element such as images, colors, or logos does not have a fixed meaning, but rather acquires its meaning through a process of interpretation carried out by the recipient of the message (Ijam & Abbaas, 2019). Therefore, it can be concluded that interpretation itself is not merely an act of decoding, but rather the core of inferential semiotic activity; individuals construct new meanings based on their experiences and culture (Lorusso, 2006).

Within the Peircean framework, semiosis is understood as an endless dialogical process between signs and interpreters, in which every meaning that is formed is always open to subsequent reinterpretation (Ponzio, 2009). The meaning produced through the process of

semiosis is highly dependent on the mutual understanding between the communicator and the audience, so that the communicator's subjective view becomes the basis for the formation of symbolic meaning (Sindhav & Adidam, 2005). However, this process is also prone to ambiguity. Ambiguity is conventionally defined in linguistics as the property of a word or utterance that has two meanings or two interpretations (Fortuny & Payrató, 2024). Previous research explains that the interpretation of messages, which mainly uses written scenarios, can be influenced by individual, sociocultural, and contextual factors such as personality, sex and gender, and ambiguity that affects interpretation (Edwards, 2011).

### **Peircean Semiotic Approach**

Charles Sanders Peirce places signs at the center of human communication and knowledge processes. For Peirce, signs always operate in a triadic relationship between representamen or sign forms, objects or realities referred to, and interpretants, which are the meanings produced by the receiver (Peirce, 1991). This relationship explains that meaning is not permanently attached to the sign, but is formed through social interaction, audience background, and knowledge or education (Zhang & Sheng, 2017). In this context, each individual brings a different cognitive and cultural framework, making the process of interpreting signs dynamic and open.

In the context of sustainability communication, Peirce's theory provides a relevant analytical framework for explaining how environmental messages are articulated and interpreted by the audience. Peirce defines a sign as a triadic relationship consisting of:

1. Representamen, which is the physical form of the sign (such as a picture of a leaf or an icon of water);
2. Object, which is the real reference or value represented by the representamen (e.g., sustainability or energy conservation); and
3. Interpretant, which is the meaning formed in the mind of the receiver based on experience, habits, and socio-cultural background.

Peirce also divides interpretants into three levels: (1) emotional interpretants that arise as affective responses to signs, (2) energetic interpretants in the form of concrete actions after receiving signs, and (3) logical or ultimate interpretants, which are stable meanings that become social habits (Lee, 2008). In this process, meaning is not fixed, but is formed dynamically and contextually, especially in a, influenced by the culture, education, and experience of the user. This concept is important for explaining why one symbol can be interpreted differently by different individuals.

Various studies show that sustainability communication often faces a gap in meaning, where visual messages designed with ecological intent are interpreted superficially or decoratively by audiences with low environmental literacy. This phenomenon reinforces Peirce's view that the meaning of signs is not universal, but rather depends on social conventions, cultural contexts, and the interpretive experiences of the society that receives them (Andacht, 2024; Goodsell et al., 2011; Kement et al., 2024).

In the hospitality industry, sustainability signs are an important part of visual communication strategies and guest experiences. Hotels use eco-friendly icons, logos, and text to affirm their commitment to sustainable practices. However, the meaning of these symbols is often not understood uniformly. Guests from different educational and cultural backgrounds can form diverse interpretations, ranging from deep understanding to simply viewing them as

commercial symbols (Gil-Soto et al., 2019; Seyfi et al., 2025; Thellefsen & Friedman, 2023). These differences create an ambiguity of meaning that is important to analyze. Using Peirce's semiotic approach, this study attempts to decipher how sustainability signs in hotels are interpreted, misunderstood, or even ignored by guests (Paraskevaidis & Weidenfeld, 2021). By combining Peirce's semiotic theory and global literature findings, this study seeks to fill a gap that has not been widely explored, particularly in the context of domestic tourism in Indonesia, which has diverse guests and varying levels of environmental literacy.

### **Methodology**

This study uses an interpretive qualitative approach that combines interviews with photo elicitation techniques and Peirce's semiotic analysis. The semiotic approach was chosen to analyze the signs of sustainability, following Peirce's scientific logic, which consists of three stages: abduction, deduction, and induction (Reilly, 2018). The abduction stage was conducted when the researcher formulated the initial assumption that differences in educational and cultural backgrounds influence the interpretation of sustainability symbols. The deduction stage was conducted by deriving working hypotheses in the form of empirical indicators—for example, how certain guests interpret the leaf icon or the text “eco-friendly” as a moral appeal or merely decoration. Next, the induction stage is carried out by analyzing interview data and photo elicitation results to see the extent to which guests' interpretations are in line with these hypotheses.

Photo elicitation is an interview method that uses photos or visual media as triggers for discussion, with the aim of stimulating deeper memories, emotions, and ideas than conventional verbal interviews (Glaw et al., 2017). Through this technique, participants are invited to reflect on their experiences when interacting with symbols of sustainability in hotels, allowing researchers to capture richer and more authentic layers of meaning.

The research location was the Grand Mercure Malang Mirama Hotel, a five-star hotel known for implementing sustainability practices in its operations. This hotel was chosen because it consistently displays symbols of sustainability in various public facilities and room areas (Accor, 2023). This context allowed researchers to directly observe how these symbols function in the hotel's visual communication and how guests from various backgrounds interpret them. The participants in this study were domestic guests staying at the Grand Mercure Malang Mirama Hotel. They were selected using purposive sampling techniques to obtain informants with a deeper understanding (Neuman, 2014). The minimum stay requirement was two days, so that they would have enough time to interact with the symbols of sustainability in the hotel environment. The selection of participants took into account the diversity of their educational backgrounds and regions of origin so that the variations in meaning that emerged could be well represented. There were seven participants in this study, all of whom came from East Java Province, Indonesia, with educational levels ranging from high school to master's degree. Detailed data on the participants can be seen in the following table:

**Table 1**  
*Informant Data*

Code Informant	Informant's Region of Origin	Informant's Highest Level of Education
01	East Java	Vocational School
02	East Java	Vocational School
03	East Java	Bachelor's Degree
04	East Java	High School
05	East Java	Bachelor
06	East Java	Bachelor
07	East Java	Master

*Note.* This table explains the coding of informants based on their region of origin and highest level of education.

Interviews were conducted in a semi-structured manner, with an average duration of 60–120 minutes per participant. All conversations were recorded with the participants' permission and then transcribed for further analysis (Page et al., 2022). Field observations were also conducted to support data validity by observing the visual context and layout of symbols in various areas of the hotel, including rooms, lobbies, restaurants, and corridors.

## Results and Discussion

### General Findings of Symbol Meaning Patterns

The analysis was conducted in several stages. In the first stage, the researchers observed the sustainability symbols in the environment of the Grand Mercure Mirama Malang hotel, which are commonly used in the hospitality industry. The researchers then identified the sustainability symbols. The following are the results of the categorization of sustainability items from the researchers' observations.

**Table 2**  
*Sustainability Item Categorization Data*

Item Code	Item (Code Reading from Left to Right)	Item Categorization
01 - 03		Facilities (in Hotel Bathrooms)
04 - 06		Facilities (in the hotel room area)

07 - 09



Facilities (in the hotel room area)

10 - 2



Facilities (at the Grand Mercure Malang Mirama Hotel restaurant)

13 - 15



The most commonly used sustainability illustrations

16 - 18



Sustainability certificate information

19 - 20



Information on the sustainability practices of the Grand Mercure Mirama Malang Hotel

*Note.* This table explains the details of 20 sustainable items and their respective categories, which are the results of the researcher's observations.

In the second stage, researchers identify signs as representaments and connect them with the objects they refer to. Third, guest interpretations are explored through interviews, revealing meanings from the process of semiosis, whether emotional, actual actions, or habitual dispositions (emotional, energetic, and ultimate interpretants). This provides an understanding of how the repetition of experiences influences the formation of interpretive habits.

### Interpretation and Ambiguity of Sustainability Symbols

Guests' interpretations of sustainability signs placed in bathroom and hotel room areas show a dynamic of meaning that moves from aesthetic aspects to environmentally friendly practices. Reusable soap bottles, for example, were initially read as symbols of luxury and hygiene in line with star-rated hotel standards, but some guests associated them more with the practice of reducing plastic waste. Environmentally friendly facilities were also interpreted in a similar way: first as luxury amenities, then as indicators of non-plastic materials, and finally as

potential symbols of healthy living habits if the narrative of sustainability was reinforced. Similarly, trash bins with the message “What you throw away today, we will recycle tomorrow” elicit a variety of interpretations: some see it as an invitation to reflect, some criticize visual aspects such as font size and symbol placement, and some suggest using more universal language such as “Save the World.” This underscores that the success of symbolic signs depends not only on the object itself but also on the accompanying visual and narrative communication strategies.

### Figure 1

#### *Several Sustainable Signs in a Hotel Bathroom*

- a. Index Sign With Reusable Soap Bottle Object



- b. Index Sign With Eco-Friendly Facility Object



- c. Symbolic Sign With a Trash Can Object Labeled “What You Discard Today, We Will Recycle Tomorrow”



Source: Personal documentation

Most guests interpret these representations as symbols of luxury and cleanliness in star-rated hotels, such as “luxurious, hygienic soap bottles that meet five-star hotel standards.” When given context, some guests also understood the sustainability aspect, namely the reduction of

plastic waste through the use of refillable bottles. In other words, the soap bottle symbol serves as both an aesthetic index and an indication of environmental awareness.

In terms of ambiguity, some guests criticized the technical aspects of the design; for example, the manual pump was considered impractical and not in line with expectations of modern hotel technology. This shows that even though the message of sustainability is conveyed (aesthetics and reuse), guests' perceptions can be distorted by their experience of using the product. Furthermore, without a clear narrative explanation, interpretations can stop at the impression of luxury without fully capturing the environmental value. Regarding trash bins, one informant even considered the message “useless” and suggested using more universal phrases such as “Save the World” and separating organic and inorganic trash bins. This gap confirms that without prominent visual context and clear language, recycling symbols can be interpreted differently by guests.

## Figure 2

### *Some Sustainable Signs in the Hotel Room Area*

- a. Symbol Signs With Eco-Friendly Cardboard Objects and Energy-Saving Appeals With the Persuasive Phrase “Darkness, Who's Afraid?”



- b. Symbol With Object Eco-Friendly Bottles & Recycling Information



- c. Index Signs With Digital Hotel Facility Directory Information



Source: Own documentation

Some guests clearly understand the energy-saving message, associating it with a personal obligation not to waste electricity. They see the combination of cards and slots as a symbol that the hotel is encouraging guests to save electricity. Some interpret the aesthetic aspect of the card as an indicator of an environmentally friendly hotel. However, not all guests pay attention to the writing; some just consider the card to be a regular electric key. In terms of the use of glass bottles, most guests consider these glass bottles to be a premium element as well as a symbol of sustainability. Some realize that the use of glass signifies environmental awareness (glass bottles  $\neq$  plastic). However, in general, the environmentally friendly message is more captured from the physical material of the bottle (glass) than from the narrative text. These bottles are considered exclusive and luxurious, and are associated with reducing plastic waste.

The slogan “Gelap Siapa Takut” (Who's Afraid of the Dark?) creates ambiguity. The narrative is small and difficult to read, so many guests overlook it. Some informants even misunderstand the word “gelap” (e.g., afraid to enter a dark room), which triggers negative or irrelevant interpretations. The limitations of readability and non-inclusive symbols hinder the main message. In other words, misunderstandings of the iconographic design of the card indicate that the meaning of energy conservation is not fully conveyed due to visual and linguistic constraints. In terms of the use of glass bottles, there is a lack of verbal communication. Informants noted that the English narrative was too long and difficult to understand. As a result, some guests ignore the text and only focus on the bottle. Several informants also found the label too crowded with text, which reduced the effectiveness of the message delivery. In other words, without easily understandable text, the glass bottle symbol is better understood at the material index level (glass) and less so at the symbolic level (narrative message).

### Figure 3

#### *Several Sustainable Signs explaining Facilities and Sustainable Practices*

- a. Index Signs With Digitalization Objects in the Hotel Facility Directory



- b. Index Signs With Sustainable Practice Objects Displayed in Video Form



c. Index Signs With Digitalization Objects in the Hotel Food Menu Directory



Source: Own documentation

Most guests interpret this digitization as a modern innovation and proof of the hotel's paperless practices. They see the digital directory as an easy way to access information and an environmentally friendly service because it reduces printing. They consider it “practical, modern, and efficient” and supportive of sustainability. In general, these digital symbols are perceived positively as part of a hotel service that is committed to the environment.

On the other hand, some informants are less focused on visual media, so not all messages are absorbed. Additionally, communication effectiveness is limited if displays are only shown in rooms. Guests suggest placing them in public areas (lobby) or providing direct education by staff to expand the message's reach. This indicates that while digitalization is understood as an environmentally friendly innovation, contextual communication strategies (location and socialization) need to be strengthened to ensure the message is fully conveyed.

**Figure 4**

*Several Signs of Sustainable Facilities Found in the Hotel Restaurant Area*

a. Object: Environmentally Friendly Food Container



b. Object: Environmentally Friendly Beverage Bottles



c. Object: Eco-Friendly Dining Utensils and Straws



Source: Own documentation

Most guests interpret this eco-friendly packaging as tangible evidence of the hotel's commitment to sustainability. The symbolic message conveyed is environmental awareness and compliance with plastic reduction regulations. Some guests even associate it with personal habits such as bringing lunchboxes or tumblers, so that this symbol resonates with their daily practices. This indicates that the symbol has successfully moved from aesthetics (luxurious iconography) to a tangible material index (plastic replacement).

However, there are obstacles in conveying meaning. Some guests do not focus on this symbol, indicating the need for a more prominent design to attract attention. Criticism has been raised regarding the iconography, such as the color and clarity of the logo, which lacks contrast on the packaging. Thus, although the value of environmental friendliness is conveyed to most guests, the effectiveness of communication still depends on the legibility and visual emphasis of the symbol.

**Figure 5**

*Some of the Most Commonly Used Sustainable Signs*

a. The Most Commonly Used Symbolic Signs With Energy-Saving Objects



b. Most Frequently Used Symbolic Signs With Water-Saving Objects



c. Most Frequently Used Symbols With Recycling Objects



Source: Internet

The energy-saving symbol is considered an easy-to-remember and positive message because of its green “go green” color. The water-saving message is also clearly understood as a relevant conservation appeal in everyday life. The water drop/tap icon effectively raises awareness that water is the source of life. The recycling symbol reminds some guests of their daily practice of recycling bottles or reducing tissue use. Overall, these icons are perceived as consistent with the conservation values of each object at the general appeal level.

On the other hand, the icon design causes confusion for some guests. The combination of lightning, leaves, and light bulbs in the energy symbol is considered irrelevant and confusing. The representation of a cupped hand in the water conservation icon is considered inappropriate (it should be an icon of the earth or nature). The recycling symbol also still causes misunderstanding; some lay guests interpret it as just a spinning arrow without a clear ecological meaning. These findings confirm that even though the basic concept is conveyed, generic iconography without context can trigger misinterpretation and requires additional explanation so that its ecological meaning is consistently understood.

### Figure 6

*Some of the Most Frequently Used Sustainable Information Signs*

a. Symbol Signs With Leaf Objects



b. Index Mark With Green Building Object



c. Symbol Sign With the Indonesian Ministry of Tourism's Sustainability Certificate Object



Source: Internet

Only one informant understood the meaning of the Eco Hotel program, while the majority did not understand or focus on this symbol. The “Eco Hotel” symbol tends to stop at the icon level (leaf image) and verbal symbol (writing), but is not connected to the index (real action).

Without indexicality, most guests do not interpret its meaning. Only informants who already have environmental awareness can relate it to the eco program.

On the other hand, the green building sign produces fragmented interpretations. Without additional narrative or context, the meaning stops at diverse immediate/dynamic interpretants (positive, critical, negative). The final interpretant (the cultural norm of “green building” or eco-values) is not collectively achieved. Some read the certificate as a sign of cleanliness and safety.

Others are confused by the heart/checklist iconography, even misinterpreting it. Others do not recognize the symbol at all. The CHSE certificate functions well at the institutional symbol level, but is weak in terms of iconography. The message “safe & healthy hotel” reaches some guests, but the heart symbol opens up the possibility of alternative/erroneous interpretations. The final interpretation of “certificate = collective trust” has not been achieved.

### Figure 7

*Several Index Signs With Photos of Sustainable Practices Carried Out by the Grand Mercure Mirama Malang Hotel*



Source: Internet

The index symbols above are perceived by guests as concrete evidence that sustainable practices are actually implemented by the hotel. The majority of guests gave positive feedback, emphasizing the ecological, social, and reputational benefits of the program. They saw the clean-up action as a sign of the hotel's concern for the local ecosystem and social responsibility. Thus, these photos serve not only as illustrations but also as factual verification—enhancing the hotel's credibility and eco-friendly image.

In terms of ambiguity, obstacles arise in terms of program information accessibility. Some new guests only became aware of the initiative after seeing documentation in their rooms, indicating limited communication. They suggested that information be displayed in public areas (such as the lobby) or on digital media so that more guests would be aware of it. In addition, guests emphasized the importance of program continuity and collaboration so that the action is not merely incidental, for example by involving the local community or developing sustainable educational programs. Without a communication strategy and sustainable implementation, the symbolic meaning of this photo cannot fully develop into a long-term interpretive habit (ultimate interpretant).

## Conclusion and Implications

Based on Peirce's semiotic approach, the symbolic meaning of sustainability in one of Malang's hospitality industry s is formed through a triadic relationship between the representamen

(visual design of the symbol), the object (the concept of sustainability), and the interpretant (the interpretation of meaning by hotel guests). This interpretant is influenced by the educational and cultural background of the participants, so that the same symbol can be interpreted differently by individuals with different knowledge or cultural values.

Visual design elements such as color, icons, and typography influence the association of meaning in the interpretant; these elements are essential for conveying messages and shaping audience perceptions. Meanwhile, the context of hotel communication (e.g., symbol placement and supporting narratives) also frames interpretation. The combination of these factors creates ambiguity: the meaning of sustainability symbols is not inherent in the images themselves, but rather the result of semantic constructions shaped by cultural experiences, education, and context. Thus, this study emphasizes the importance of semiotic awareness in designing sustainability symbols so that the messages conveyed are relevant and unbiased for each audience segment.

In the future, more extensive research is needed, including involving small hotel chains, as previous studies have shown that smaller hospitality companies tend to be less likely to adopt environmental practices and invest in communicating them compared to global chains (Calisto et al., 2021). In terms of policy, this research can provide input for the Ministry of Tourism and the Indonesian Hotel and Restaurant Association (PHRI) in formulating sustainability indicator guidelines and sustainability symbols that not only meet visual aspects but can also be interpreted appropriately across cultures (Antonova et al., 2021).

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### **Declaration of the Use of AI and AI-Assisted Technology in the Writing Process**

The author used ChatGPT (<https://chat.openai.com/>) and DeepL (<https://www.deepl.com/en/home>) to check the manuscript, with minimal use in the Literature Review section. ChatGPT, an AI language model, helped identify typos, grammatical errors, passive sentences, repetitions, and unnecessary adverbs. The final result is then further refined to maintain the author's original intent and writing style.

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**Contact email:** [benita1108@student.ub.ac.id](mailto:benita1108@student.ub.ac.id)