

Article

Exploring Design Strategies for Cultivating Sustainability and Enhancing Brand Image in Personal Care Product Brands

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Abstract: Through strategically implementing sustainable practices, businesses can enhance their public image and incentivize consumers to purchase environmentally friendly products. In recent years, many enterprises have actively pursued corporate social responsibility, striving to achieve profitability, fairness, and societal benefits simultaneously, thus creating a beneficial cycle for both businesses and the environment. The COVID-19 pandemic has altered brand perceptions and consumer habits, impacting not only packaging materials, product life cycles, and corporate social responsibility but also significantly impacted sustainability. Personal care products are utilized by individuals on a daily basis, emphasizing the need to consider various indicators in designing brand image strategies to ensure sustainable development. This study focuses on indicators for sustainable brand image design strategies within the personal care product indicators, employing a modified Delphi method to establish these indicators. The relative weights of these indicators were determined using the Analytic Hierarchy Process. The research findings underscore that conveying brand ideals to consumers, committing to brand values, enhancing brand visibility, and creating value are considered the most crucial indicators in the design of sustainable branding strategies for personal care products. These results provide essential insights for researchers and brand developers to formulate corresponding strategies, thereby achieving sustainable brand development and enhancing competitiveness.

Keywords: sustainability; brand image; design strategy; modified Delphi method; analytical hierarchy process (AHP)



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1. Introduction

With the promotion of the concept of environmental protection and sustainability, consumers increasingly prefer sustainable products, thus, sustainability has become a key strategy for corporate development. If environment-friendly corporations can motivate consumers to buy green products, it will be helpful to the global trend of environmental protection [1]. Consumers pay more and more attention to sustainable lifestyles, and they not only consider environmental protection but also expect to gain personal advantages from green products. Green is promoted in various areas, such as green energy in production and manufacturing or environment-friendly and zero-waste packaging [2]. Papanek pointed out that the development of products (goods and services) would directly affect society and the environment [3]; sustainable strategies can reduce the effects of the life cycle, and more importantly, change consumer behaviors [4]. The appropriate ecological protection requires adequate environmental awareness, and consumers with high awareness are more likely to have sustainable purchasing behaviors [5]. Encouraging consumers to buy environment-friendly products not only brings benefits to the environment but also creates opportunities for corporations. By properly implementing sustainable strategies, corporations can improve their image and convince consumers that they are environmentally responsible [6].

Sustainable development has been a focal point for researchers and professionals across various fields, such as engineering, business, and design. It encompasses three dimensions, environment, experience, and society, necessitating collective balance and optimization [7]. Internationally, renowned multinational corporations, including IKEA, 3M, The Body Shop, and Patagonia, spanning home, daily use, beauty and skincare, and clothing brands, actively engage in global sustainable development issues, addressing procurement, consumption, and carbon reduction. In recent years, the global trend among corporations and brands is dedicated to reshaping the global economy for the benefit of humanity, communities, and the Earth. This has given rise to the emergence of socially beneficial enterprises committed to a sustainability assessment, reflecting a broader societal trend and marking a shift in business philosophy. Emphasizing the interconnectedness of public interests, these enterprises showcase the capacity for corporate self-reflection and driving transformative change [8]. Nobel economist Robert Shiller contends that socially beneficial enterprises represent an innovative organizational model capable of generating more profits than traditional corporations. These enterprises leverage business to address societal and environmental challenges, thereby influencing legal obligations and corporate culture [9].

The escalating quantity of product packaging has led to severe concerns regarding resource depletion and environmental pollution. The economic model, characterized by the excessive exploitation of natural resources and intensified pollution, is no longer favorably viewed, particularly when considering the intricate interconnection between product packaging, environmental preservation, and sustainable development. The pursuit of sustainability has emerged as a novel consumer aspiration, seeking equilibrium between economic growth and ecological development [10]. Following the outbreak of the COVID-19 pandemic, the use of personal care and hygiene products became inevitable, yet the stimulated demand may lead to increasing environmental concerns [11]. The global market segment for natural and personal care products is experiencing rapid growth, increasing from \$34.5 billion in 2018 to \$36.3 billion in 2019, and is projected to reach \$54.5 billion by 2027. Understanding the factors influencing and augmenting consumers' intentions toward personal care products within specific commercial contexts is valuable [12].

Within this context, brands are compelled to deliberate earnestly on sustainability, extending beyond the product itself to encompass all facets associated with the brand, spanning the supply chain to resource utilization. Consumers exhibit an amplified concern for the environmental impact of brands, gravitating towards those committed to sustainable development. Consequently, enterprises, in crafting their brand images, ought to prioritize a user-centric design ethos, grounded in a human-centric approach, and demonstrate an unwavering commitment to environmental sustainability. This not only aligns with the evolving preferences of consumers but also fortifies the brand's position in the sustainable market.

This study aims to amalgamate brand image design strategies for personal care products, aiming to establish a comprehensive system of design strategy indicators. The findings are intended to provide valuable references for both academic research and practical design applications. The specific objectives of this study include:

1. Establishing a more effective assessment scale: Through the application of the modified Delphi method, this research seeks to construct a more precise and concrete assessment scale. This enhancement aims to comprehensively quantify the characteristics and traits of brand image design for personal care products. The goal is to elevate the accuracy and reliability of the evaluation tool.
2. Identifying core strategic indicators: Utilizing the Analytic Hierarchy Process, this study aims to explicitly identify and determine the core strategic indicators within the brand image design for personal care products. This clarification is intended to provide direction and ensure the criticality and applicability of the design process.
3. Emphasizing sustainable development brand: A particular emphasis will be placed on factors related to sustainable development. This emphasis is designed to offer a more

in-depth and expansive perspective on the sustainability brand, thereby promoting the concept within the realm of brand image design. The intention is to encourage both research and practical efforts in achieving sustainable goals.

2. Literature Review

The emergence of sustainable development signifies a transformation in business paradigms, with many enterprises shifting towards a more holistic and sustainable direction, moving away from traditional, profit-centric models. This transformation necessitates new business models that not only focus on profitability but also consider social inclusivity, address stakeholders' needs, and extend the company's values into broader sustainability realms [13]. Michael Porter's concept of "Creating Shared Value" highlights the pivotal role of businesses in addressing societal issues, emphasizing that companies should pursue not only profits but also meaningful impacts on society. Today, companies must balance multiple stakeholders' interests, including employees, suppliers, the environment, and society, while pursuing profits. Corporate Social Responsibility (CSR) is defined as a company's commitment to environmental and social welfare [14]. McWilliams and Siegel (2001) suggest that CSR contributes to building a corporate reputation, making consumers more inclined to support brands associated with good reputations [15]. Brands associated with high reputations receive better evaluations in the process of brand value accumulation [16].

We have conducted a study comparing for-profit enterprises with sustainable benefit corporations and found that while benefit corporations invest substantial funds in CSR activities, it does not harm their profitability [17]. Instead, it enhances the favorability of corporate brands in the minds of consumers and strengthens the positive impression of brand image. This study underscores the importance of bestowing an appropriate brand image in enhancing market competitiveness. By investing in CSR activities, companies can cultivate favorable brand images, thus winning more consumer favor. As sustainable business models emerge as the future trend of corporate operations, the continuous operation of sustainable benefit corporations and their cyclical model of mutual benefit with the social environment becomes particularly crucial. This issue not only involves human society and the environment but also represents a future trend, thus deserving further exploration.

The social mission of a company has a profound impact on its service quality and brand image. The social mission not only helps customers understand the organization's goals, responsibilities, and duties but also contributes to the establishment and improvement of service and image for internal and external stakeholders [18]. With the rise of corporate responsibility and sustainable development, corporate social responsibility has become an indispensable part of a corporate brand strategy, especially for new brands seeking to stand out in mature markets. The brand is the most valuable aspect of a business, with its value surpassing that of products or services [19]. The relevant literature also confirms the crucial influence of brand image on consumers' evaluations of products, especially when consumers have limited knowledge of the products, they rely on the brand name or image to assess the quality of the product [20].

Therefore, the value of sustainable benefit enterprises is not only reflected in the tangible benefits of their products but is also deeply rooted in intangible symbolic meanings. Consumers integrate this positive value into their personal image, making it a concrete manifestation of social responsibility. In this process, brand image plays a crucial role, serving not only as a representative of the enterprise but also as a window for consumers to showcase their personal values and sense of social responsibility. This construction of self-image is not limited to the individual level but resonates through the collective values represented by the brand, forming a positive consumer community. Each participant, while supporting these social enterprises, also imbues themselves with a more positive and socially responsible image. Therefore, the support of social enterprises for brand image is not just an endorsement of the enterprise but also empowers consumers' personal values and sense of social responsibility.

This study contends that when comparing the impact of different types of enterprises on consumers' brand image and self-image, sustainable benefit enterprises have a more profound influence relative to traditional enterprises. Traditional enterprises typically emphasize the functionality and value of their products, while placing less emphasis on social responsibility and values. Consequently, consumers' identification with these enterprises is often limited to the products themselves, without linking them to personal values and social responsibility. In contrast, sustainable benefit enterprises prioritize social responsibility and sustainable development, showcasing these values through their brand image. Specifically, it can be explored how the social responsibility image of sustainable benefit enterprises attracts increasingly socially responsible consumers, thereby promoting brand loyalty and word-of-mouth effects. Additionally, discussions can revolve around the strategies and measures adopted by sustainable benefit enterprises in brand marketing, such as sustainable packaging, eco-friendly products, and how these strategies influence consumers' perceptions and attitudes towards the brand. Through these discussions, a deeper understanding of how sustainable benefit enterprises shape consumers' self-image through brand image and social responsibility can be gained. By comparing and analyzing these strategic differences, a better understanding of the performance and challenges of enterprises in sustainable development can be obtained, providing insights for businesses to formulate more effective sustainable development strategies.

Personal care products play an essential role in daily life, used for personal hygiene, cleanliness, grooming, and beauty, hence people frequently come into contact with these products. Over the past few years, there have been changes in the frequency and preferences of individuals in using personal care products, influenced by socioeconomic conditions, lifestyle, and trends [21]. With the outbreak of the COVID-19 pandemic, many people have increased their focus on personal hygiene, leading to a rise in the use of personal care products [22]. However, along with the increased usage of personal care products, there have also been some potential issues. Firstly, excessive use of personal care products may lead to overconsumption of resources and energy. The production of these products requires significant amounts of energy and raw materials, and overuse implies more energy and resources are being consumed. Additionally, a large amount of packaging waste is also generated, imposing considerable pressure on the environment.

The personal care products market is a crucial part of the global market and deserves closer examination. This is because it has witnessed significant growth in scale over the past few years [23]. Due to the environmental damage and pollution caused by the extensive use of personal care products, sustainable benefit enterprises emphasize serving humanity in the best possible way, making this business model a trend for future corporate operations. In this context, the construction of a brand image becomes paramount. Consumers not only care about the practical utility of personal care products but also pay more attention to the brand's social responsibility, such as the naturalness of product ingredients and the sustainability of packaging. The image of branded products is also conveyed through product packaging. Packaging design helps establish sensory connections between products and consumers, providing a personalized touch and hope to the public, and even enhancing people's lives. When people are surrounded by beautifully packaged products, they not only feel good but also strengthen their impression of the products [24].

Green marketing increasingly emphasizes the environmental friendliness of the products being sold, with one aspect of this effort including modifying the supply chain to make products more eco-friendly. However, despite the importance of green production, a company needs to make consumers aware of its efforts to become more environmentally friendly. Therefore, green marketing consciousness becomes crucial for brands in showcasing their efforts to care for the environment [25]. The increasing quantity of product packaging, along with the growing consumption of resources and worsening environmental pollution, has become increasingly serious. Economic development at the cost of the overexploitation of natural resources and exacerbation of pollution is no longer popular. Sustainability and sustainable development are closely related. In terms of consumer

demand and ecological necessity, consumers believe that reducing packaging materials is the most sustainable choice, and the development of new packaging concepts is making significant progress [26]. This socially responsible brand image not only represents a company's response to the environment and society but also establishes an emotional connection between the brand and consumers. It not only meets practical needs but also expresses concern for social responsibility, reinforcing their self-image. Green sustainable consumption has a significant impact on ecosystems. Therefore, visualizing the behavioral factors of emerging markets promotes insight into the sustainability movement and coordinates human activities towards nature to maintain green behavior, or behavior that has a meaningful impact on the environment to change social conditions [27].

These research findings highlight the importance of the personal care product market and the challenges in sustainable development and environmental protection. Understanding consumer expectations and concerns about products will help businesses formulate more effective brand strategies to achieve sustainable development goals. By improving product design and packaging and emphasizing the company's environmental efforts, businesses can establish a more positive brand image and attract more environmentally conscious consumers. Meanwhile, emphasizing the importance of the supply chain and raising environmental awareness will help reduce the consumption of natural resources and environmental pollution. Therefore, future research and practices should further explore sustainable brand image design strategies to promote the sustainable development and environmental protection of the personal care product industry. This study believes that consumers' growing concerns about product ingredients, packaging sustainability, and other aspects reflect their concern for social responsibility and the demand for environmental protection. In such market trends, businesses need to establish socially responsible brand images to attract more environmentally conscious consumers to deeply resonate with consumers emotionally. Additionally, it is necessary to point out the importance of green marketing and sustainable packaging measures for businesses to achieve sustainable development goals. These efforts not only respond to environmental concerns but also align with consumer values, helping to reinforce consumers' self-image. Sustainable benefit corporations should play a more proactive role in shaping brand image, leading consumers toward a more meaningful shopping experience.

In the design process, it is not only a strategic plan but also a key method for businesses to meet the rapidly changing market demands and explore emerging potentials. The core objective of a design strategy is to translate business concepts and goals into tangible forms for better internal and external communication, and to develop products and services that align with the company's competitive advantages [28]. However, the success of this depends on the actual execution of the design process and the evaluation of the outcomes. Mortati and Maffei emphasized that design innovation has become a new source of meaning for products and services, emphasizing that within human-centered innovation, businesses can more effectively influence social and environmental changes through meaningful design strategies [29]. In this regard, design metrics serve as tools for the careful analysis of objectives, which are crucial for businesses to formulate design strategies and serve as a basis for improvement strategies [30]. Therefore, through appropriate design processes and the meticulous application of strategies, businesses can gain an advantage in the competitive market and ensure that the actual effects of the design meet the expected goals.

Through efforts in sustainable design, businesses are able to reduce their negative impact on the environment [31]. The close integration of brand image and design strategy is key to enhancing competitiveness, as brands can stand out in the market and gain consumer support through strategic design [28]. In the context of sustainable benefit enterprises, design strategies can further enhance brand image, making it the "ideal brand" in the minds of consumers. Through the benefit dimension, the construction of brand image is not only about the product itself but also a concrete expression of corporate values and social responsibility. Such integration helps to improve the competitive advantage of businesses and contribute to the sustainable development of society and the environment. As Aaker

stated, brand identity is the consumer's perception of the brand, which is crucial in their purchasing decisions [32].

From the synthesis of the above literature, it can be observed that companies, faced with pressures for sustainable development and social responsibility, are gradually shifting towards business models that are more socially meaningful and sustainable. It also emphasizes the importance of branding for sustainable benefit corporations, stressing that companies should not only focus on profits but also consider their impact on society and the environment. Through the construction of brand image, companies can demonstrate their social mission and values, attracting more socially responsible consumers, thereby enhancing brand loyalty and market competitiveness. Additionally, with the development of the personal care product market, consumers' concerns about product ingredients, packaging sustainability, and environmental protection are increasing, reflecting the demand for social responsibility and environmental protection. Sustainable benefit corporations in this market can emphasize their commitment to environmental friendliness and social responsibility through the construction of their brand image, attracting more consumers concerned about sustainability, and thereby enhancing brand image and market competitiveness.

However, the aforementioned literature also has some limitations. Firstly, although the research indicates the positive impact of sustainable benefit corporations on brand image, there is still insufficient exploration into different industries and market contexts. Companies in different industries may adopt different strategies and produce different effects when facing the challenges of sustainable development. Secondly, the literature lacks an in-depth exploration of consumers' perception and cognition processes regarding brand image and social responsibility; to explain this, further research in psychology and consumer behavior is required. Nonetheless, this study aims to delve deeper into the construction of brand image for sustainable benefit corporations in the personal care product market, with the literature providing important theoretical foundations and inspirations for this research. In terms of research methodology, the design strategies and sustainable innovation concepts mentioned in the literature can be referenced, followed by specific methodological approaches to analyze brand image design strategies for personal care products. Through further exploration in this study, we can expect to provide concrete methods for constructing brand design strategies for personal care products using examples of application in the field of brand design, enriching the scope of application of relevant research methods. This is crucial for companies to formulate strategies for sustainable development and brand construction, providing more substantive suggestions and contributions for the sustainable development and brand construction of enterprises.

3. Research Methods

3.1. Research Process

This research aims to develop strategies for establishing a sustainable brand image for personal care product brands, exploring the potential influence on its indicators. We plan to engage experts with backgrounds in branding, CSR, and sustainable brands. Please refer to the Figure 1 outlining the research structure.

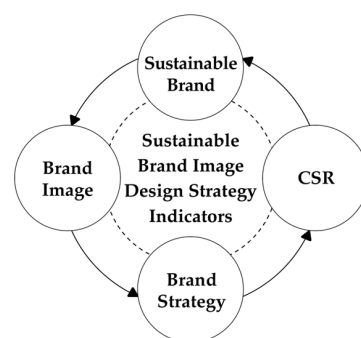


Figure 1. Research framework (resource: offer from this study).

This research is structured into two phases: (1) Identifying design indicators through interviews and literature review, and initially constructing a hierarchical structure of these design indicators. This involves employing the modified Delphi method to involve experts in confirming and refining the structure of design strategy indicators established in the previous stage. The experts provide feedback on the indicators, and those with a low consensus are eliminated to achieve consistency. (2) Utilizing the Analytic Hierarchy Process (AHP) to conduct a feasibility application and evaluation of the indicator architecture from the preceding step. This involves confirming the indicator weights and determining their importance ranking. The research initially gathers the preliminary index structure through qualitative methods, subsequently employing quantitative methods to revise and validate the hierarchical design structure. The evaluation includes determining the weight of each indicator, establishing a comprehensive and applicable image design strategy indicators system (Figure 2).

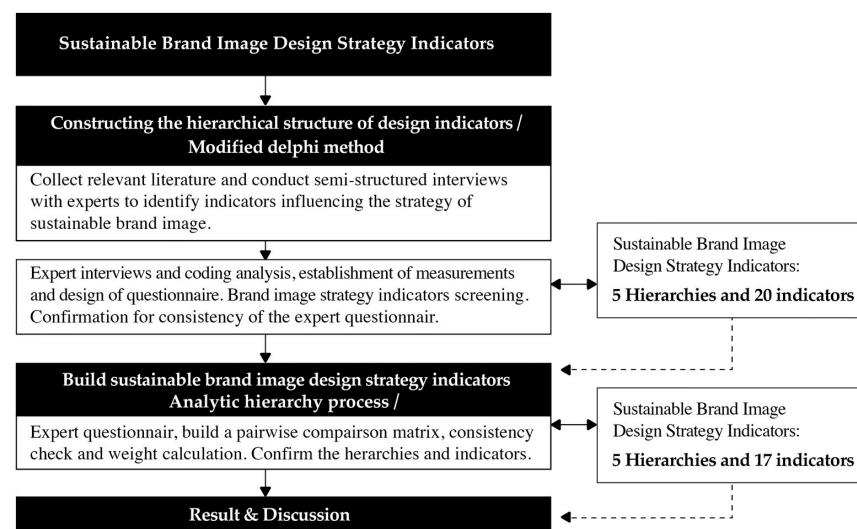


Figure 2. Research flowchart (resource: offer from this study).

3.2. Constructing the Hierarchical Structure of Design Indicators: Modified Delphi Method

Experts were enlisted to contribute their professional knowledge, expertise, and insights for the formulation of brand image design strategy indices. While the Delphi method is commonly employed, it tends to yield inconsistent expert opinions due to difficulties in controlling the time during implementation. Therefore, to address this limitation, Murry and Hammons introduced the modified Delphi method, which offers the advantage of saving considerable time and allows the expert group to concentrate on the research topics at hand [33]. Distinguishing themselves from the general populace, experts possess a wealth of foundational knowledge, enabling them to recognize and stimulate more intricate problem-solving strategies for organization and integration [34].

The modified Delphi method, due to its features such as expert participation, anonymity, feedback loop, and flexibility, emerges as an appropriate research approach for exploring strategies. The involvement of experts from various fields allows for the consideration of diverse opinions and perspectives, ensuring a more comprehensive, objective, and credible strategy formulation. This method guarantees expert anonymity, reducing the likelihood of influence from other members and enhancing the objectivity of the research. By utilizing multiple rounds of surveys and feedback loops experts facilitate in gradually approaching consensus and reaching unanimous opinions. Moreover, the method offers flexibility, enabling adjustments based on research objectives and requirements, while maintaining a certain level of systematization and standardization through structured procedures [35]. Given these characteristics, the modified Delphi method is well suited for strategically exploring the research objectives, hence is chosen as the method for the preliminary construction of design strategy indicators.

3.2.1. Step 1: Preliminary Screening of the Concepts as Indicators

This study, through the collection and review of the relevant literature, has developed a systematic and planned semi-structured interview outline. The purpose is to gain in-depth insights into the perspectives of experts and scholars on sustainable brand images. Seven professionals (Table 1), including designers, brand owners, and experts in social enterprises who have experience in sustainable brand enterprises, were invited to participate in semi-structured interviews. The interview outline primarily covered topics such as “sustainability”, “brand and brand image”, and “design strategy”. This design aimed to gather data from multiple perspectives, contributing to the development of more diverse and objective indicators.

Table 1. Expert information.

Number	Profession	Seniority	Expertise
A	Designer	15	Brand and package design
B	Design lecturer	20	Brand design and regional revitalization
C	Sustainable brand owner	10	Brand management
D	Designer	20	Brand and package design
E	CSR expert	10	Sustainability and social innovation
F	Design professor	20	Brand and package design, design education
G	Sustainable brand owner	10	Brand management

3.2.2. Step 2: Establishment of Measurements and Design of Questionnaire

This study employs expert interviews and the modified Delphi method to delve deeply into brand design strategies. Through carefully planned expert interviews, we integrate professional insights from both the branding and research domains to complement the limitations of the literature review. To streamline the questionnaire retrieval process and save time, we adopted the modified Delphi method, combining it with the literature review findings and insights gained from expert interviews, thus establishing a comprehensive and in-depth data foundation. During the expert opinion collection phase, we utilized the KJ method, inviting three professionals with over 10 years of expertise in brand design and a blend of practical and academic experience. Following the principle of “one concept per paper card”, we gathered a rich dataset, including 135 paper cards. After two rounds of cluster categorization, removal, and adjustment of inapplicable indicators, these data form the basis for the first-round modified Delphi survey questionnaire. We preliminarily categorized the indicators into five levels and 20 items for the evaluation of relevant indicator criteria (Table 2), providing a benchmark for the subsequent evaluation stage.

3.2.3. Step 3: Screening of Brand Image Strategy Indicators

The expert questionnaire consists of two parts. The first part gathers basic information, including the expert’s field, qualifications, and educational background. The second part focuses on the investigation of sustainability brand image design strategy indicators. For each indicator, the expert rates its importance on a scale from 1 to 7. Experts are encouraged to provide comments or express any concerns they may have about specific indicators. In this phase, 15 experts were selected from three categories: those with practical experience in sustainable brand design, experts in design research, and professionals in brand management and social enterprises (Table 3). The questionnaire is conducted in two rounds to ensure comprehensive insights. These experts, despite having relatively limited experience in personal care product branding, bring valuable perspectives due to their professional backgrounds in sustainability and CSR. Despite their shorter average seniority in personal care product branding, their proficiency in sustainability and CSR contributes to a meaningful understanding and analysis of the subject matter.

Table 2. Preliminary sustainable brand image strategy indicators in this study.

Dimension	Design Strategy Indicators	Indicator Explained	Literature
A. Sustainable Brand Enterprise Standards	A1. Brand Governance Transparency and Standard	Through brand design, demonstrate transparency in corporate governance, aligning with standards related to social, environmental performance, and legal requirements.	Honeyman, [8]; Arjaliès & Mundy [36]; Semi-structured interviews with experts
	A2. Mutual Benefits and Coprosperity	Foster interconnectedness within the brand, promoting mutual benefits and coprosperity among stakeholders.	
	A3. International Certification Communication	Emphasize the brand's adherence to international accreditation and assessment standards, distinguishing it from traditional social enterprises.	
	A4. Human-Centered Thinking	Centered on people, this approach underscores the brand's commitment to prioritizing not just profits but also the creation of values that are centered around the needs and aspirations of individuals.	
B. Brand Concept	B1. Brand Narrative	Constructing a captivating brand narrative to facilitate audience understanding, memorability, and, consequently, achieving brand dissemination and identification.	Aaker [19]; Semi-structured interviews with experts
	B2. Brand Personality	Endowing the brand with a distinctive and vivid personality to facilitate audience differentiation and recognition.	
	B3. Brand Positioning	Finding a unique position for the brand in the fiercely competitive market, establishing an image in the minds of the audience.	
	B4. Brand Value Communication	Establishing the material and cultural values of the brand in the hearts of the audience and conveying them through effective communication channels.	
	B5. Brand Commitment	Ensuring the brand aligns with audience expectations, maintaining consistency between words and actions, thereby gaining the trust and support of the audience.	
C. Brand Visual Identity	C1. brand Concept Delivery	Visualizing or symbolizing the core and concept of the brand to facilitate easy dissemination and memorability.	Keller [37]; Semi-structured interviews with experts
	C2. Mascots and Brand Ambassadors	Presenting characters capable of speaking for or promoting the brand, establishing a strong connection with the brand.	
	C3. Auxiliary Graphics	Providing supplementary visuals that explain the symbolic meaning of the brand, expanding the visual communication channels between the brand and the audience.	
	C4. Brand Visual Consistency Standards	Establishing standards for visual design applicable to different spaces, ensuring consistency in brand identification while enhancing the audience's impression of the brand.	

Table 2. Cont.

Dimension	Design Strategy Indicators	Indicator Explained	Literature
D. Brand Marketing	D1. Brand Awareness	Evaluating the degree of brand recognition in the audience, which contributes to stimulating purchasing motivation or reinforcing brand identification.	Kartajaya, H; Kolter, P., Setiawan [38]; Semi-structured interviews with experts
	D2. Media and Event Exposure	Examine through which media channels the brand image is communicated externally. Additionally, considering whether these communication methods effectively convey the desired feelings or concepts the brand wishes to present.	
	D3. Brand Appeal	Assess the attractiveness of the brand, determining its success in gathering popularity and purchasing power to achieve the brand's intended categorization and positioning.	
E. Product and Packaging	E1. Recycling and sustainability	Employ environmentally friendly materials and processes, striving to minimize the impact on the Earth and human society.	Keller [37]; Sasada [39]; Semi-structured interviews with experts
	E2. Differentiation	Establish uniqueness that sets itself apart from competitors and homogeneous brands or products.	
	E3. Aesthetic Design	Convey brand and product messages visually, emphasizing aesthetics to attract and connect with consumers.	
	E4. Value Creation	Achieve brand sales and asset accumulation goals through appropriate means, continuously creating value.	

Table 3. Experts' demographic information for screening brand image strategy indicators.

Expertise	Seniority Years Mean	Male/Female	Age Years Mean	Education/%
Design practice	16	3/3	42	Master's degree 80%/Bachelor 20%
Design research	13.8	1/4	43	PhD student 100%
Sustainability and CSR	5.2	2/2	38	PhD 20%/Master's degree 60%/Bachelor 20%

3.2.4. Step 4: Confirmation for Consistency of the Expert Questionnaire

The expert questionnaire underwent a validation process to ensure the reliability of the gathered opinions. The expert responses served as valuable data sources, and indices that did not achieve a consensus among experts were excluded from further analysis. SPSS software version 22 was employed to compute the mean (M) with a threshold of ≥ 4.0 , standard deviation (SD) < 1 , and coefficient of variation (CV) ≤ 0.3 . This criterion was applied based on the frequency distribution chart of the descriptive statistics. Subsequently, the results from the initial round were integrated into the subsequent questionnaire, with the expert responses from the first round included for reference. The iterative issuance of the questionnaire followed this procedure, with the removal of indices lacking expert consensus. In cases where consensus remained elusive, adjustments were made to the questionnaire, and experts were consulted to ensure the survey achieved consensus.

3.3. Analytic Hierarchy Process for Ranking Strategy Indicators

The Analytic Hierarchy Process (AHP) has found applications in numerous research domains related to decision making and evaluation. Developed by Thomas Saaty in 1980, the AHP systematically decomposes complex problems by hierarchically structuring them. It employs a pairwise comparison method to identify the relative importance ratios between elements, establishing a sequence of preferred alternatives that serves as the basis for determining the optimal solution.

The AHP is widely recognized as an objective and reliable research method. Its standardized procedure involves establishing a hierarchical structure, conducting pairwise comparisons, and calculating weights, which ensures a systematic and standardized evaluation process, thereby enhancing the reliability and comparability of the research outcomes. The AHP transforms experts' subjective judgments into quantifiable data, further ensuring the objectivity of the evaluation process. Consistency checks are employed to verify whether experts' pairwise comparisons are consistent, aiding in ensuring the reasonableness and credibility of their judgments. Past empirical research has also demonstrated the effectiveness and objectivity of the AHP method in practical applications [40], further bolstering confidence in its reliability. Therefore, considering these features, the AHP method is selected as the research approach for evaluating strategies to ensure the objectivity and credibility of the research outcomes.

The primary objective behind the development of the AHP is to systematize complex problems by employing a method that involves hierarchical decomposition. This approach makes complex evaluations more accessible and understandable through the hierarchical structuring of the target issue. Through quantitative assessments, the AHP provides decision makers with comprehensive information to choose the appropriate solution plans, thereby reducing the risk of decision-making errors [41]. The AHP includes the following steps:

1. Step 1: Establishing a comparison hierarchy for each layer.

In the expert survey process, we first contacted 10 experts with rich professional backgrounds and over 10 to 20 years of experience through email or other communication methods. They were invited to participate in the "Survey on Relative Weights of Sustainable Brand Image Design Strategy Indicators". The survey was distributed electronically to the participants, who were asked to compare the relative importance of each level indicator pairwise (Table 4). In designing the survey, we took into account the experts' professional backgrounds and experiences to ensure the validity and effectiveness of the questionnaire content. In the future, improvements to the questionnaire design can be made through the further assessment of the questionnaire's issues and collection of feedback.

Table 4. AHP Experts' demographic information.

Expertise	Seniority Years Mean	Male/Female	Age Years Mean	Education/%
Design practice	17.8	2/3	40	Master's degree 80%/Bachelor 20%
Design research	18.5	2/3	42	PhD student 60%/ Master's degree 80%

The questionnaire was distributed electronically to the participants, utilizing the expert AHP to formulate the "Survey on Relative Weights of Sustainable Brand Image Design Strategy Indicators". It involved pairwise comparisons of each level indicator, employing a ratio scale of 1 to 9 as the standard for comparison, where 1 denotes "extremely unimportant" and 9 represents "extremely important". Through pairwise comparisons, the relative importance of each item within each hierarchy structure was evaluated. The first step in achieving more objective and accurate weight calculations between different

indicators based on the AHP method is to conduct pairwise comparisons and establish a determined matrix for each hierarchy.

2. Step 2: Delete low-consensus indicators, calculate weights, and consistency testing.

After the questionnaire collection, geometric statistics were conducted in Excel, followed by consistency testing and weighting of the indicators using Power Choice 2.0 software. Indicators lacking consensus among experts were removed, including those with low consensus. Saaty recommends assessing the consistency of pairwise comparison matrices using consistency index (C.I.) and consistency ratio (C.R.). The consistency index is compared with the random index (R.I.), generated at different orders to evaluate the consistency ratio, calculated as $C.R. = C.I./R.I.$ A C.R. value ≤ 0.1 indicates a satisfactory consistency of the pairwise comparison matrix. The computation of the consistency index and consistency ratio evaluates the consensus among experts and the reliability of the matrix. By interpreting these results, we can determine whether the consistency level of the pairwise comparison matrix meets the research requirements.

3. Step 3: Indicator collection and individual assessment.

In collecting and integrating individual the AHP assessments from the experts, we followed the following steps: (1) Individual assessment collection: Each participating expert independently completed the assessment of relative importance for each pair of indicators based on their professional knowledge and experience. These individual assessments were recorded numerically for subsequent integration and analysis. (2) Consistency check: After integrating the expert assessments, we conducted a consistency check again to ensure that the integrated assessment results had a certain degree of consistency. This helped ensure the credibility and reference value of our analysis results. (3) Indicator ranking: Based on the average relative importance scores for each indicator, we ranked them. This provides us with a clear understanding of the importance of ranking of each indicator in the sustainable brand image design strategy. This helps decision makers better understand the priority of each indicator for making wiser decisions. Through these steps, we were able to obtain a comprehensive, expert-consensus-based assessment of relative importance, which will help us more accurately assess the relative weights of indicators in sustainable brand image design strategy and provide guidance for subsequent research and decision making.

4. Results and Discussion

4.1. Analysis and Discussion of the Results of the Modified Delphi Method

In this study, an analysis of the reliability of the measured results was conducted, and Cronbach's Alpha was employed for model analysis. The calculated values for Cronbach's Alpha in the two rounds were 0.804 and 0.819, respectively, surpassing the standard threshold of 0.7 (Table 5). This signifies that the reliability of the study findings was deemed acceptable.

Table 5. Reliability analysis.

First Round		Second Round	
Cronbach's Alpha	N of Items	Cronbach's Alpha	N of Items
0.804	25	0.819	22

In the course of this study, two rounds of questionnaires were administered, and expert opinions were leveraged as primary data sources. Index deletion was implemented for those failing to meet expert consensus. The criteria for eliminating low-consensus indexes adhered to the principles outlined [18]. Specifically, an index with a mean (M) value of ≥ 4.0 denoted a high degree of agreement, a standard deviation (SD) < 1 signified a low dispersion of expert opinions, and a coefficient of variation (CV) ≤ 0.3 indicated a high level of consistency among expert opinions. These criteria served as the basis for determining whether expert consensus was achieved.

In the initial round, the following indices were eliminated: C3 “auxiliary graphics”, d1 “brand awareness”, and d2 “Media and Event Exposure”. This decision was based on the criteria of $M > 4$, $CV \leq 0.3$, and SD not reaching 1. Additionally, E3 “Design aesthetics” was retained, as some experts deemed it aligned with sustainability brand image design strategy indicators, and no alteration was made to its designation.

In the subsequent round, the questionnaire from the initial phase underwent scrutiny, with all items satisfying the stipulated criteria of $M \geq 4.0$, $SD < 1$, and $CV \leq 0.3$. This conformity suggests the attainment of expert consensus, signaling the conclusion of the questionnaire survey. The study yielded five dimensions and 17 indicators for sustainability brand design (Tables 6 and 7).

Table 6. Importance of dimensions (N = 15).

Dimension	1 Round			2 Round			Paired Sample <i>t</i> -Test	
	M	SD	CV	M	SD	CV	<i>t</i> Value	<i>p</i> Value
A. Sustainable brand enterprise standards	6.40	0.50	0.07	6.33	0.61	0.09	0.36	0.71
B. Brand concepts	6.73	0.45	0.06	6.46	0.74	0.11	1.07	0.30
C. Brand visual identity	5.93	0.88	0.14	6.26	0.88	0.14	−1.00	0.33
D. Brand marketing	5.80	0.86	0.14	6.53	0.51	0.07	−2.95	0.10
E. Products and packaging	5.86	0.74	0.12	6.20	0.77	0.12	−1.04	0.31

Note: $M \geq 4.0$ indicates a high degree of agreement; $SD < 1$ indicates a low degree of dispersion; $CV \leq 0.3$ indicates a high consistency; *p* value > 0.05 indicates a consistency of the same expert in questionnaires of two rounds.

Table 7. The importance of the design indicators statistics (N = 15).

Dimension	Design Indicators	First Round			Second Round			Paired Sample <i>t</i> -Test	
		M	SD	CV	M	SD	CV	<i>t</i> -Value	<i>p</i> -Value
A. Sustainable brand enterprise standards	A1. Brand governance, transparency, and standards	5.66	0.81	0.14	5.80	0.94	0.16	−0.61	0.54
	A2. Mutual benefits and coprosperity	6.60	0.50	0.07	6.46	0.51	0.07	0.80	0.43
	A3. International certification communication	5.80	1.08	0.18	6.53	0.51	0.07	−2.75	0.16
	A4. Human-centered thinking	6.26	0.45	0.07	6.66	0.61	0.09	−2.10	0.05
B. Brand concepts	B1. Brand narrative	5.86	0.99	0.16	6.33	0.81	0.12	−1.60	0.13
	B2. Brand personality	5.46	1.06 *	0.18	---	---	---	---	---
	B3. Brand positioning	6.26	0.79	0.12	6.60	0.63	0.09	−1.32	0.20
	B4. Brand value communication	6.66	0.48	0.07	6.40	0.63	0.09	1.74	0.10
	B5. Brand commitment	6.80	0.41	0.06	6.53	0.63	0.09	1.46	0.16
C. Brand visual identity	C1. Brand concept delivery	6.26	0.59	0.09	6.46	0.63	0.09	−0.89	0.38
	C2. Mascots and brand ambassadors	4.46	1.12 *	0.25	---	---	---	---	---
	C3. Auxiliary graphics	5.00	1.00 *	0.2	---	---	---	---	---
	C4. Brand visual consistency standards	5.73	0.88	0.15	6.33	0.72	0.11	−1.96	0.70

Table 7. Cont.

Dimension	Design Indicators	First Round			Second Round			Paired Sample <i>t</i> -Test	
		M	SD	CV	M	SD	CV	<i>t</i> -Value	<i>p</i> -Value
D. Brand marketing	D1. Brand awareness	5.86	0.91	0.15	6.26	0.79	0.12	−1.24	0.23
	D2. Media and event exposure	5.80	0.94	0.16	6.06	0.79	0.13	−0.80	0.43
	D3. Brand appeal	5.53	0.91	0.16	5.80	0.94	0.16	−0.77	0.45
E. Products and packaging	E1. Recycling and sustainability	6.06	0.79	0.13	6.46	0.63	0.09	−1.70	0.11
	E2. Differentiation	6.06	0.88	0.14	6.13	0.91	0.14	−0.20	0.84
	E3. Aesthetic design	6.00	0.92	0.15	6.46	0.74	0.11	−1.33	0.20
	E4. Value creation	6.33	0.48	0.07	6.53	0.63	0.09	−1.00	0.33

Note: $M \geq 4.0$ indicates a high degree of agreement; $SD < 1$ indicates a low degree of dispersion; $CV \leq 0.3$ indicates a high consistency; p value > 0.05 indicates a consistency of the same expert in questionnaires of two rounds. “*” indicates exceeding the standard value.

4.1.1. Dimension A: Sustainable Brand Enterprise Standards

This dimension comprises four indicators, A1–A4. Across two rounds, the criteria of $M > 4$, $SD < 1$, and $CV \leq 0.3$ were met, indicating consistency within standard values. The survey results from both rounds underscore the unanimity of expert opinions. Initially, the experts emphasized that the objectives of sustainable personal care product brands extend beyond benefiting stakeholders to being beneficial to the general public. Given the people-centric nature of personal care products, the indicator named “Human-centric thinking” remained unchanged. In the second round, A4, “Human-centric thinking” garnered the highest mean in this dimension and was recognized as the most crucial indicator by experts. These findings underline the key role of sustainable branding strategies and highlight the consensus among experts on the concept.

4.1.2. Dimension B: Brand Concepts

In the first round, the indicator “Brand personality” (B2) was excluded from consideration, failing to meet the criteria ($M > 4$, $CV \leq 0.3$, and $SD > 1$). Experts noted disparities in consumer reception and perception of the “brand personality”, suggesting a limited impact on brand acceptability. Consistent opinions were maintained for the remaining four strategic indicators in both rounds. Notably, “Brand positioning” (B3) emerged with the highest mean in this dimension, significantly influencing future brand development. Aligned with the commitment to sustainable development and social responsibilities inherent in a sustainable brand, the indicator “Brand personality” (B2), grounded in this ethos, continues to play a crucial role in shaping future brand trajectories and behaviors.

4.1.3. Dimension C: Brand Visual Identity

Brand visual identity encompasses visual strategies for a brand, including graphics and spatial elements. This dimension comprises four indicators, C1 to C4. In the first round, the averages (M) for C2 “Mascots and brand ambassadors” and C3 “Auxiliary graphics” were greater than 4, and the CV was less than or equal to 0.3. However, the SD exceeded 1, causing divergent opinions among experts on these two indicators. Experts noted the varying importance of “Mascots and brand ambassadors” in brand development, leading to the deletion of this strategy factor. Additionally, “Auxiliary graphics” was deemed less important in a design strategy due to its lower consumer recognition. Among these indicators, C1 “Brand concept delivery” had the highest average in this dimension. This indicator involves visualizing or symbolizing the core values and concepts of a brand,

making it easily communicable and memorable. When brands interact with consumers, they typically convey their brand philosophy through different mediums.

4.1.4. Dimension D: Brand Marketing

This dimension encompassed four factors, denoted as D1 to D4, and primarily focused on brand communication and marketing. The statistical parameters, including means (M) exceeding 4, SD below 1, and $CV \leq 0.3$, were consistently within standard values across the two survey rounds. As a result, three factors were retained, reflecting a conformity to established benchmarks. The high degree of agreement among experts in both questionnaire rounds underscores the robustness and consistency of their opinions. Within this dimension, D1, “Brand awareness”, emerged with the highest mean. The elevated level of brand awareness signifies widespread market circulation or effective transmission, influencing consumer attitudes and purchase intentions. Consequently, D1, emphasizing brand awareness, attained the top position within this dimension. Given the intimate nature of personal care products and the paramount consideration of safety and environmental concerns, consumers tend to prioritize brands with higher awareness, steering clear of unfamiliar ones.

4.1.5. Dimension E: Products and Packaging

This study centers on formulating design strategies for the brand image of sustainable personal care products, where products and packaging are considered indispensable dimensions. This construct comprises indicators denoted as E1 to E4. Across both survey rounds, M consistently surpassed 4, with SD below 1 and $CV \leq 0.3$, aligning with the established standards. Consequently, all four indicators within this construct were retained. The results from both survey rounds demonstrate a notable consensus among experts, emphasizing that products serve as a critically influential indicator for consumers and a key determinant affecting brand operations.

Given this study’s specific focus on sustainable personal care product brands, it significantly influences the perceived importance of the product and packaging dimensions, along with their respective strategic indicators. Notably, E4, “Value creation”, emerged with the highest mean within this construct. Sustainable brands not only contemplate the creation of economic value but also prioritize the values of sustainability and environmental responsibility. This involves crafting products that meet consumer demands while concurrently minimizing their environmental impact through the utilization of eco-friendly packaging. The research demonstrates the intricate relationship between sustainability practices, consumer preferences, and brand strategies in the personal care product indicator. This integration with ecological consciousness not only enhances brand awareness but also contributes to the overall success and longevity of the brand in the market.

4.2. Analysis and Discussion of the AHP Results

The purposes of this study were to build sustainable personal care product brand image design strategy indicators, identify the relative weights of all indicators in all dimensions, discuss evaluation indicators, and evaluate indicator consistency based on expert opinions. For the design strategy indicators hierarchy and the expert evaluation results in this study, a consistency test was carried out and the weights of all indicators were calculated by Power Choice 2.0 (Table 8).

The C.R values for the five dimensions of indicators in this study are all less than 0.1, indicating an acceptable level of consistency among these dimensions (Figure 3). Through a comparison of the overall relative weights (Table 7), this study observed the ranking of the dimensions as follows: “Brand concept” with a weight of 0.242, “Brand marketing” with a weight of 0.204, “Brand visual identity” with a weight of 0.197, “Product and packaging” with a weight of 0.191, and “Sustainable brand enterprise standards” with a weight of 0.165.

Table 8. Design indicator statistics in AHP.

Dimension	Indicator Weight	Dimension Ranking	Design Indicators	Local Weight	Overall Weight	Indicator Ranking	Consistency
A. Sustainable brand enterprise standards	0.165	5	A1. Brand governance, transparency, and standards	0.127	0.020	17	0.058
			A2. Mutual benefits and coprosperity	0.426	0.070	6 *	
			A3. International certification communication	0.130	0.021	15	
			A4. Human-centered thinking	0.315	0.051	11	
B. Brand concepts	0.242 *	1	B1. Brand narrative	0.089	0.021	16	0.025
			B2. Brand positioning	0.248	0.060	8 *	
			B3. Brand value communication	0.299	0.072	5 *	
			B4. Brand commitment	0.362	0.087	2 *	
C. Brand visual identity	0.197	3	C1. Brand concept delivery	0.717	0.141	1 *	0.000
			C2. Brand visual consistency standards	0.282	0.055	9	
D. Brand marketing	0.204 *	2	D1. Brand awareness	0.401	0.081	3 *	0.015
			D2. Media and event exposure	0.270	0.055	10	
			D3. Brand appeal	0.328	0.066	7 *	
E. Products and packaging	0.191	4	E1. Recycling and sustainability	0.198	0.037	13	0.022
			E2. Differentiation	0.133	0.025	14	
			E3. Aesthetic design	0.250	0.047	12	
			E4. Value creation	0.418	0.079	4 *	

Note: “*” indicates exceeding the mean. The mean weight of all dimensions is $1/5 = 0.2 = 20\%$ and the mean weight of all indicators is $1/17 = 0.058 = 5.8\%$.

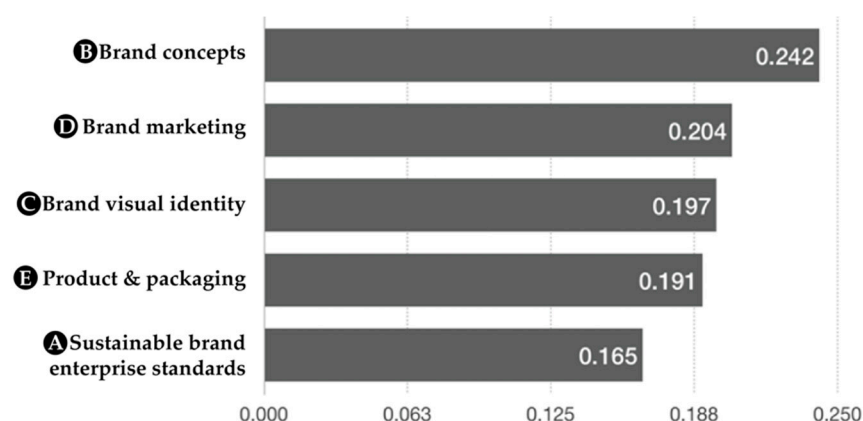


Figure 3. Design dimension ranking in this study.

The C.R values for the 17 indicators are all less than 0.1, indicating an acceptable level of consistency. The indicators are ranked based on their weights, from highest to lowest as follows (Figure 4): C. Brand visual identity with C1 “Brand concept delivery” having a weight of 0.141, B. Brand concept with B4 “Brand commitment” at 0.087, D. Brand marketing with D1 “Brand awareness” at 0.081, E. Product and packaging with E4 “Value

creation” at 0.079, A. Sustainable brand enterprise standards with B3 “Brand value communication” at 0.072, A. Sustainable brand enterprise standards with A2 “Mutual benefits and coprosperity” at 0.070, D. Brand marketing with D2 “Media and event exposure” at 0.066, and B. Brand concept with B2 “Brand positioning” at 0.060.

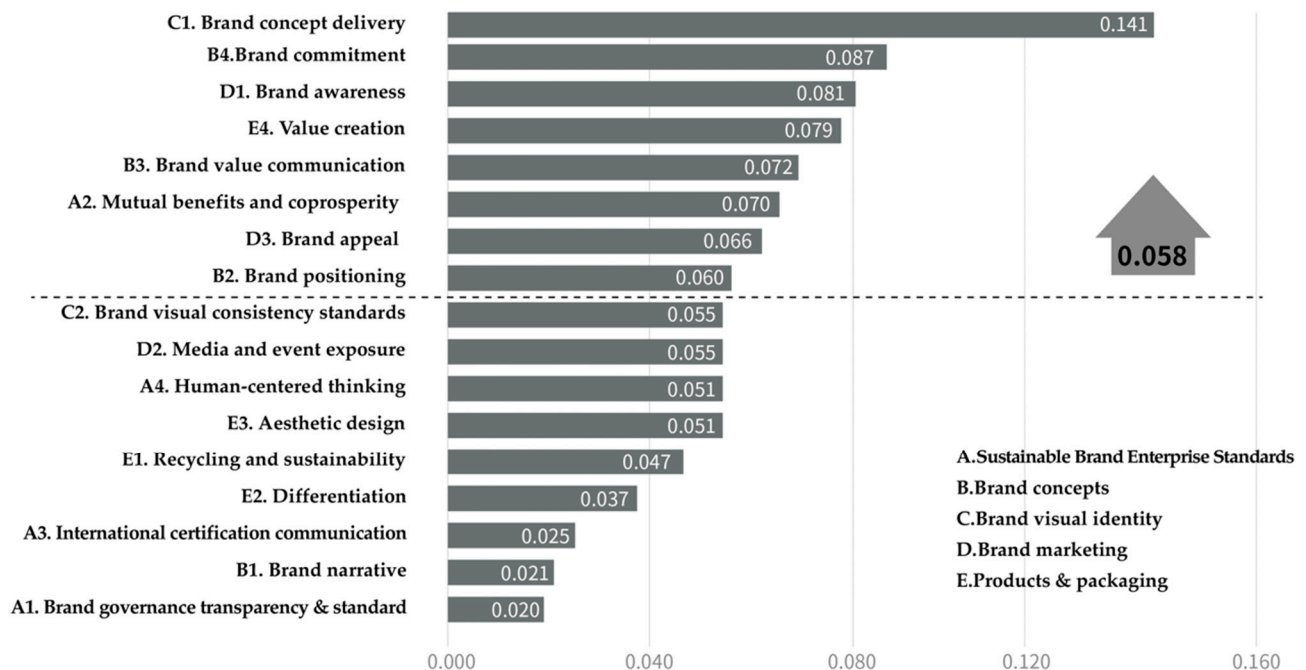


Figure 4. Design indicators ranking (resource: offer from this study).

4.2.1. Ranking 1: Dimension B “Brand Concept”

The indicator of B4 “Brand commitment” had the highest weight of 0.362 in this dimension, followed by the indicator of B3 “Brand value communication” with the weight of 0.299, and the indicator of B2 “Brand positioning” ranked third with the weight of 0.246. Agrawal and Maheswaran have highlighted that brand commitment has consistently been regarded as a crucial marketing concept for brand loyalty and conversion, serving as a significant facet in consumer attitudes [42]. Consumers establish a psychological connection with a brand based on identification, loyalty, and affiliation [43]. In comparison to conventional brands, sustainable brands engaging in more extensive communication with consumers shoulder greater social responsibilities and missions. Personal care products addressing environmental, safety, and well-being concerns, play a crucial role in brand development. The brand actively accumulates assets through mediums like positioning, message conveyance, and philosophical communication, emphasizing a brand philosophy at the product level.

4.2.2. Ranking 2: Dimension D “Brand Marketing”

D1, “Brand awareness”, holds the highest weight in this dimension at 0.081; followed by D3, “Brand appeal”, with a weight of 0.066; and D2, “Media and event exposure”, ranking third with a weight of 0.055. Both D1 and D3 in this dimension exceed the average weight. Consumers often engage in brand comparisons and conformist attitudes during the purchasing process. Aaker emphasizes the significance of brand awareness, as consumers tend to include well-known brands in their purchasing decisions and evaluate them [44]. Compared to lesser-known brands, well-known brands enhance consumer trust in the product and strengthen their willingness to make a purchase.

Personal care products are directly applied to the body, and consumers tend to distrust brands that are unfamiliar or lack credibility. Therefore, brand awareness and appeal significantly impact the design strategy of the sustainable brand image. The promotion

of sustainable brands has a global reach, and despite the continuous entry of well-known brands into sustainable initiatives, brand marketing remains a crucial aspect.

4.2.3. Ranking 3: Dimension C “Brand Visual Identity”

The statistical results in the “Brand visual identity” dimension reveal that the C1 “Brand concept delivery” indicator holds the highest weight in this dimension, with a value of 0.141. It is also considered one of the most crucial indicators among the 17 evaluated by the experts. In terms of brand design, a brand’s concept delivery to consumers through symbols, colors, shapes, fonts, and other elements help to shape a positive brand impression. Brand identity plays an immensely influential and superior role in corporate assets, with every actively managed brand requiring a brand identity tool that guides and inspires brand planning [45]. In the context of brand visual identity, the C2 “Brand visual consistency standards” indicator similarly carries a high weight of 0.055 in this dimension. Considering that personal care products need to be displayed in various channels, shelves, and counter spaces, the visual design of these display spaces should not only convey brand extension and storytelling but should also emphasize comprehensive perspectives such as social impact, emotional connections with consumers, and brand sustainability. The findings of this study contribute not only to the in-depth academic research on brand visual identity but also provide practical recommendations for brand design, enriching our understanding of a brand’s visual identity.

4.2.4. Ranking 4: Dimension E “Products and Packaging”

In this dimension, the E4 indicator, “Value creation”, carries the highest weight of 0.079. Among sustainable personal care product brands, experts have identified value creation as the paramount index within this dimension. Consumers engage in the purchase of tangible packaged products, and their aesthetic perceptions, recognition, and impressions of both products and packaging collectively contribute to the formation of an intangible brand value. This necessitates the implementation of judicious design strategies. The remaining three indicators—E1 “Recycling and sustainability”, E2 “Differentiation”, and E3 “Aesthetic design”—underscore the importance of sustainability, differentiation, and design aesthetics in the context of sustainable brand emphasis, highlighting their relevance in the design considerations for every brand.

4.2.5. Ranking 5: Dimension A “Sustainable Brand Enterprise Standards”

A2, “Mutual benefits and coprosperity”, has the highest weight of 0.070 in this dimension, highlighting the experts’ recognition of the core values of sustainable brands. This underscores the need, particularly in brand exposure and communication with consumers, to emphasize this value during the brand image design process. Secondly, A4, “Human-Centric Thinking”, with a weight of 0.051, distinguishes sustainable brands from conventional enterprises, focusing on a human-centric approach. In this study, which focuses on sustainable brands of personal care products, a stronger emphasis is placed on approaching the subject from a human perspective. A1, “Brand governance, transparency, and standard”, holds the lowest weight in this dimension, indicating that in the brand image design strategy for personal cleaning products used by consumers, communication with consumers about the brand and product takes precedence, while corporate governance systems are relatively considered less important. Stubbs utilizes the framework of a Sustainable Business Model (SBM) to analyze the characteristics of sustainable brand models. The sustainable brand model emphasizes the importance of mission and purpose, including internalizing social and environmental concerns, reducing negative impacts, increasing positive effects, and establishing mutually beneficial models with stakeholders [46]. Therefore, emphasizing the “Sustainable brand enterprise standards” becomes a key element in achieving shared benefits and propelling the brand further, serving as a vital component in deepening sustainable thinking and operations.

4.3. Discussion

While corporate brands aim to generate profits, they should also pursue a meaningful social impact. “Creating shared value” stands as a core proposition in sustainable brand philosophy. Personal care products, being widely used by the public, require a carefully crafted brand image design strategy to create more possibilities for sustainable operation and reduce the wasteful use of Earth’s resources. Thus, this study employs a modified Delphi method and Analytic Hierarchy Process (AHP) to construct the “Study on Image Design Strategy Indicators for Sustainable Personal Care Brands”, aiming to practically measure brands, especially those committed to benefiting society and achieving shared value. The research encompasses five dimensions and 17 strategic indicators (Figure 5).

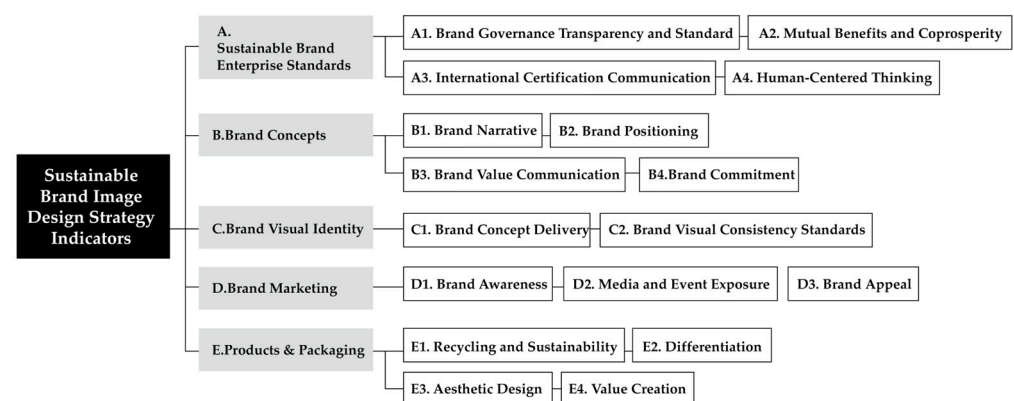


Figure 5. Sustainable brand image strategy indicators.

This study constructs design indicators through the Delphi method and Analytic Hierarchy Process (AHP). The indicators derived from expert opinions provide a more comprehensive and objective assessment of sustainable branding strategies for personal care products. The conclusions of this study are as follows:

1. The importance of brand concept and commitment: Among these dimensions, there is unanimous agreement among experts that a “brand concept” is crucial for the design of the brand image of sustainable personal care products. For consumers with a sustainability mindset, the brand concept is a primary consideration when choosing personal care products related to personal safety. Emphasizing the importance of brand concept not only contributes to the successful establishment of the brand in the market but also defines the brand’s direction from the outset, creating distinctiveness and developing unique design strategies suitable for sustainable brands. Building a widely recognized and supported brand requires prolonged efforts. Experts unanimously regard “Brand commitment” as pivotal, with a specific focus on brand commitment, which is crucial for fostering trust and connections in sustainable brands. Existing research and theories support brand commitment as a key driver of consumer loyalty and brand conversion. Emphasizing the “Brand commitment” dimension enhances sustainable brand impact and market sustainability. In the competitive market of personal care products, consumers tend to choose brands that offer safety, reliability, and align with their values. Therefore, establishing a clear brand concept and committing to practicing these values are crucial for the long-term success of the brand.
2. The significance of a brand’s visual identity: The strategy indicators designed in this study play a critical role in the image design of sustainable brands, with experts considering “Brand visual identity” as the most crucial dimension for conveying the brand’s concept. These dimensions reflect concerns about the values and commitments that sustainable brands should embody. However, merely focusing on design strategies is insufficient; it is also necessary to communicate the values of sustainable brands to a broader audience through marketing methods, attracting

more resonant consumers to participate and thereby generating more goodwill action cycles. In the market for personal care products, consumers typically evaluate the quality and safety of products through their appearance and packaging. Therefore, visually appealing and a consumer-expectation-aligned design can stimulate consumer interest, increasing their favorability and consumers trust in the brand. Through clever visual design, brands can effectively convey their core values and sustainable principles, eliciting resonance and emotional connection with consumers. In conclusion, brand visual identity design is not only about catching the eye but also profoundly influencing consumers' psychological states through visual perception, thereby affecting their purchasing decisions and brand attitudes. This research perspective will help provide more specific guidance, making sustainable brands more effective in practical applications.

3. The relationship between consumer demand and brand marketing: "Brand marketing" is also considered a key factor in establishing the strategy indicators of this study. A compelling story is essential for brands in marketing. In the process of brand construction and management, marketing is deemed an indispensable element. Particularly for sustainable brands, the impact of how marketing expands brand influence, making the brand known and accepted by consumers, is more pronounced. The weights of both "Brand concept" and "Brand marketing" exceed the average values, emphasizing that these two dimensions are deemed significantly important by experts. This underscores the key elements of successful brand image design for sustainable personal care products, focusing on brand philosophy and effective marketing. In the market of personal care products, the image and marketing strategies are crucial for consumer perception and engagement. Brands like The Body Shop have effectively demonstrated how compelling brand stories and ethical marketing resonate with consumers. By promoting values such as sustainability, cruelty-free practices, and community engagement, brands like The Body Shop have successfully cultivated a loyal customer base while making a positive impact on society and the environment. This underscores the importance of integrating brand values with marketing efforts to establish meaningful connections with consumers, ultimately enhancing brand loyalty and market influence.
4. Modified Delphi method research findings: In the Delphi phase of this study, there was a difference in expert consensus regarding the indicators of "Brand personality", "Mascots and brand ambassadors", and "Auxiliary graphics". Experts considered these three factors to have an indirect impact on the formulation of design strategies or consumer perceptions, leading to their exclusion. Within the dimension of "Brand concept", the highest average was observed, aligning with the core values of sustainable branding and emphasizing the importance of social responsibility. This corresponds to the notion that brand image design should originate from the internal core and extend outward, encompassing attitudes and behaviors. In the two rounds of questionnaire surveys, a high consensus was obtained for A2 "Mutual benefits and coprosperity", B3 "Brand value communication", and B4 "Brand commitment". This affirms that sustainable brands, while pursuing profitability, should also be responsible towards consumers, stakeholders, the environment, and society, achieving a multifaceted approach to sustainable business practices. The research findings provide important insight. In the personal care product market, consumers are increasingly concerned about product safety, reliability, and environmental impact. Brands catering to personal care products may emphasize commitments such as cruelty-free testing, natural ingredients, and non-toxic chemicals, aligning with consumers' core values. Therefore, the consistency of brand concepts and the prioritization of social responsibility, particularly appealing to consumers seeking ethical and environmentally friendly products, are more attractive and resonant.
5. AHP research findings: The results of the AHP reveal that among the five dimensions, "Brand concept" holds the highest weight, reaching 0.242. This indicates that con-

sumers prioritize the values of shared goodness, environmental sustainability, and social corporate responsibility conveyed by sustainable brands when choosing personal care product brands. This not only becomes the primary consideration in brand selection but also underscores the trend shifting from merely comparing product functionality and cost effectiveness, to a heightened emphasis on the psychological aspects of consumers. Additionally, the “Brand marketing” dimension emerges as a secondary critical aspect. The promotion and recognition of a brand’s positive starting point are essential for cumulative dissemination, extending the brand’s influence to reach a broader audience. Eight indicators surpassed the average values, namely C1 “Brand concept delivery”, B4 “Brand commitment”, D1 “Brand awareness”, E4 “Creating value”, B3 “Brand value communication”, A2 “Mutual benefits and coprosperity”, D3 “Brand appeal”, and B2 “Brand positioning”. The COVID-19 pandemic has significantly impacted consumer behavior and preferences, particularly evident in the personal care product market. With the outbreak, there has been a notable increase in consumer concern for hygiene and health, leading to a rise in demand for personal care products. This heightened awareness may further enhance consumer focus on brand values and commitments, particularly regarding sustainability and safety considerations. Hence, the results of the AHP study not only theoretically support the importance consumers place on brand values but also align with actual consumption trends, reinforcing the credibility and significance of this conclusion. Every aspect of business operations generates social impact, necessitating a balanced approach between profitability and social value to achieve a collaborative and sustainable business model. The striking a balance between profit and social responsibility is known as CSR 2.0.

6. Interrelationships among indicators: The conclusion of this study indicates that there may be various interrelationships among indicators exceeding the average values. For instance, there could be a positive correlation between brand commitment and brand awareness in the personal care products industry, as consumers tend to prefer brands that promise high quality and reliability. This correlation reflects consumers’ demand for brand credibility and product quality. There may be a close relationship between brand value communication and sustainability. Sustainability has become a key brand value in today’s market, with consumers increasingly concerned about a company’s social responsibility and environmental friendliness. Furthermore, there may be a close association between brand strategy and brand awareness. Effective brand strategies can enhance brand awareness in the market, thus attracting more consumers. There is also a close relationship between personal care products and value creation. Consumers typically purchase these products to meet their needs and expectations, expecting them to provide value and benefits. These relationships underscore the close connection between brand strategy, social responsibility, and product quality in the personal care products industry, which is crucial for the success of businesses.

In sustainable brands of personal care products, this encompasses various aspects including materials, raw materials, employees, upstream and downstream suppliers, consumers, etc., forming a cycle of mutual benefit. The goal is to become a beneficial enterprise to the entire society, emphasizing the practice of social responsibility. This concept differs significantly from profit-driven mainstream consumer brands and green designs initiated from environmental concerns. It transcends the singular product attribute of green design and emphasizes the establishment of a mutual-benefit relationship throughout the value chain, thus broadening and deepening its societal impact. The design strategies outlined in this study offer valuable references for achieving sustainable development in sustainable brands and balancing robust business operations with social responsibility in general brands. These strategies are not only applicable to brand reengineering but also serve as practical approaches towards sustainable business practices. Through the specific

application of these recommendations, brands can not only achieve profitability but also effectively fulfill social responsibilities, thereby fostering a positive corporate image.

5. Conclusions

In today's business environment, brands play a crucial role for both enterprises and products, with their image being the accumulation of consumers' impressions of various elements. This study primarily conducts a quantitative evaluation of sustainable brand image design strategies for personal care products. Experts systematically analyze complex issues and employ quantitative calculations across different dimensions for assessment. However, the research has limitations, particularly the lack of consumer perspectives and discussions on the research topic. The study contributes to the existing literature by enhancing understanding in the field of brand management regarding the sustainable brand image of personal care products. Through quantified evaluations based on expert opinions, this study provides specific indicators for the sustainable brand image of personal care products, offering valuable references for future research. The methodological innovation applied allows for quantifying expert subjective evaluations, thereby enhancing the objectivity and accuracy of the assessment, potentially paving the way for new research avenues in similar studies.

Providing practical guidance is essential for brand designers and operators. This includes adopting eco-friendly materials, reducing energy consumption, and fostering values of mutual benefit. Moreover, brand ethos and commitments should be reflected in the brand's visual identity to ensure alignment with their core values. By delivering both tangible and intangible value to consumers, brands can establish deeper connections and achieve sustainable development goals.

Future research could delve deeper into exploring consumers' perceptions of sustainable brand image for personal care products, aiding in a better understanding of consumers' awareness and preferences regarding sustainable values. This, in turn, can guide enterprises in formulating and implementing brand strategies. Additionally, exploring the interdependent relationships between these indicators using an Analytic Network Process (ANP) is worth exploring. Compared to the Analytic Hierarchy Process (AHP), ANP can better handle cyclic dependencies and complex network relationships between indicators, providing more comprehensive analysis results. Through ANP application, researchers can gain a deeper understanding of the relationships between these indicators, thereby guiding the formulation and implementation of brand strategies to expand and promote more comprehensive design strategies. Lastly, this study's results can be applied to brand management practices, providing guidance to enterprises to align their brand image more closely with sustainable values, shaping a positive corporate image, enhancing competitiveness, and sustainable development capabilities. Furthermore, collaborating with personal care product brands for testing would enrich research resources and make research findings more applicable to real-world scenarios, thereby enhancing the applicability of the research.

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