Sustainable Packaging Design with Influence of Japanese Philosophy

by

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Abstract

This thesis uses the concept of emotion to analyze the sustainability of packaging. It describes the environmental impact of packaging and current strategies to address this issue. It discusses the significance of user perceived experience for the product. This thesis presents a framework based on Norman's theory on three levels of emotional design: the "visceral level, behavioral level and reflective level" are proposed to illustrate the user's experience before, during and after use. The research indicated that the reflective level has a two-way effect on the user and the product; it is the highlight of a long-lasting connection with the product. The *Wabi-Sabi* and *Shibumi* are traditional Japanese values, which are used to explore how to love the imperfections and flaws of the world in the face of the force majeure of nature, time and the environment, in order to achieve sustainable use and development of products.

The research concludes with a guideline to designers for designing sustainable products with perceived value; however, this paper is limited to the application in packaging design. Designers could spread the concept of sustainability through Japanese philosophy and aesthetics to increase user's awareness of ecological issues. Innovative repurposing of sustainable packaging is experience-oriented to expand the connection between user and product and achieve emotional attachment. Retailers could apply Japanese philosophy on the brand culture to increase customer loyalty with the concept of green consumption and eco-friendliness. This broadens the limits of the concept of environmental protection in the field of materials technology.

Acknowledgments

I am glad that my five years of industrial design studies at Auburn University have allowed me to slowly find my passion in the midst of confusion. I always believe that design is diversity, and I try to see the issue from a different perspective, which makes me more tolerant. I hope to do something to contribute to society with my modest design skills.

First of all, I would like to thank my major professor, Tin-Man Lau, whose multicultural concept has stimulated my interest in culture. His awareness and reflective consciousness of society has inspired me to think about philosophy. As a result, my thesis studies design concepts related to philosophy to help me understand the meaning behind design in greater depth. In the weekly thesis course, he always attentively instructed the direction of my thesis and helped me organize my thoughts. His encouragement and trust boosted my confidence to overcome my difficulties.

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Table of Contents

List of Tables

Chapter 1 Introduction

1.1 Problem Statement

The prevalence of e-commerce has brought consumers the convenience of price, time and geographical factors in shopping, and express delivery has become an essential link. In 2020 with the sudden outbreak of the epidemic, online shopping has become the main channel of purchase. The issue of product packaging design for online shopping is being focused on by some companies and designers who are environmentally conscious. Retailers prevent products from being damaged on the road, and weakly functional shipping boxes are over-packaged by retailers for enhanced protection. This behavior results in poor user experience when opening the box, the low recyclability of some used packages, and irreversible damage to the environment. Irresponsible designers merely stay at the visceral and behavioral level of design concepts, ignoring the necessity of the reflective level of design to the product, the user, and the environment. Is it possible for a reflective consciousness of packaging to bring a new breakthrough in environmental protection?

1.2 Need for Study

Japanese philosophy has five sources and is a philosophical hybrid of Shinto, Confucianism, Buddhism, Western academic philosophy, and Bushido. It became an independent philosophy that in many ways could be a rival to its predecessors. Japanese philosophers acquired the skill of analyzing foreign ideas by examining the cultural assumptions behind them to determine their potential impact into their own culture. It is at the heart of the opposing viewpoint by absorbing the original viewpoint of the other, completing the process of allocation, relegation, and hybridization (Kasulis, 2019).

The concept of aesthetics is a product of philosophy, and the Japanese philosophical counterpart to Western "aesthetics" did not begin to develop until the 19th century. A good way to look at this broader field is to look at the most important aesthetic ideas that emerged in the course of the Japanese tradition, since Japanese aesthetics is a metaphorical expression of philosophical thought. Classical Japanese philosophy probably has two artistic ideas, the first of which understands reality as constantly changing, and this fundamental impermanence is reflected in traditional Japanese art. "Awareness of the fundamental condition of existence is a call to vital activity in the present moment and to gratitude for another moment's being granted to us" (Parkes & Loughnane, 2018, para. 4). The second view is that Japanese art is often referred to as a "way of life". Eastern culture and art are more closely related to the life of the mind than the Western tradition. Unlike most Western aesthetics, Japanese aesthetic experiences and activities are used to serve a wider range of goals.

1.3 Objectives of Study

- To study the improvement strategy to face environmental effects of e-commerce.

- To define and study the consumption motivation of shopping.

- To study the relationship between consumerism and brand attitude.

- To define and study the experiential aspects of consumption.

- To study the Japanese philosophy and determine the relationship between Japanese Zen Aesthetics and Western Modern Minimalism.

- To develop an approach with Japanese philosophy to develop an environment friendly package.

1.4 Definition of Terms

Emotional durable design:

As an approach to sustainable design, "emotionally durable design reduces the consumption and waste of natural resources by increasing the resilience of relationships established between consumers and products" (*Emotionally Durable Design,* n.d.)

Hedonism consumption:

Hedonistic (or **hedonic**) **consumption** focuses on consumer behavior which seeks sensory pleasures or hedonistic benefits provided by interaction with goods or services ("Hedonism Consumption", 2020)

Wabi-sabi:

A combination of two old words with overlapping definitions, *wabi-sabi* might be the Buddhist view of the facts of existence: Both life and art are beautiful not because they are perfect and eternal, but because they are imperfect and fleeting (Barton, 2016, p. 1).

Shibui:

Shibui (渋い) (adjective) and shibumi (渋み) (noun) are Japanese words which refer to a particular aesthetic of simple, subtle, and unobtrusive beauty ("Shibui", 2020).

Japanese Zen:

Japanese Zen refers to the Japanese forms of Zen Buddhism, an originally Chinese Mahāyāna school of Buddhism that strongly emphasizes dhyāna, the meditative training of awareness and equanimity. ("Japanese Zen", 2021, para. 1)

1.5 Assumptions

- It is assumed that all the research, approaches, methods and data I found are reliable.

- It is assumed that the visceral level, the behavioral level and the reflective level are the main

experiential aspects of consumption.

- It is assumed that emotional persistence can alleviate packaging waste.

- It is assumed that shape, color, text, texture and use process are the main factors affecting the sustainability of packaging.

- It is assumed that packaging design is one of the important factors affecting brand preference.

- It is assumed that Japanese philosophy and aesthetic concepts can guide users to pay attention to the sustainability of packaging.

1.6 Scope & Limits

This paper does not involve interventions in the field of packaging materials and technologies for environmental sustainability but focuses on the view of sustainability derived from Japanese philosophy, which means the value of sustainable packaging from the perspective of Japanese philosophy and aesthetics. This paper develops the sustainable concept with the user and company centered, but without considering the economic perspective.

It focuses on the user perceived value under the influence of emotional packaging design. It incorporates brand personality to increase consumers' brand preference. Therefore, shipping boxes with strong brand identity may increase the probability of theft.

1.7 Procedures & Methodology

Procedure 1: Study the development of online shopping, the environmental effects of online shopping, and research the improvement strategy for more sustainable future.

- Studying online research, articles and library resources.

- Analyzing existing cases and figures report.

Procedure 2: Study the consumption motivation of shopping, define the utilitarianism

14

consumption and hedonism consumption, and research the influence of consumer identity on brand preference.

- Studying online research, articles and library resources.

Procedure 3: Study the experiential aspects of consumption, research the product of reflective level - emotional durable design.

- Studying online research, articles and library resources.

- Analyzing existing products.

Procedure 4: Study Japanese Philosophy, define *Wabi-Sabi*, and research the design expression of *Wabi-Sabi*.

- Studying online research, articles and library resources.

- Analyzing related brands and products.

Procedure 5: Research the relationship between Japanese Zen Aesthetics and Western Modern Minimalism.

- Studying online research, articles and library resources.

- Select strategies for analysis.

Procedure 6: Summarize design thinking from literature reviews.

- Develop a flow chart.

Procedure 7: Develop the design tool for sustainable package with emotional durable design.

Procedure 8: Apply the guideline into a product design process.

1.8 Anticipated Outcomes

The outcome is to help designers to design a sustainable package with philosophy in Japanese aesthetics to achieve emotional attachment, helping users build green consumption

concepts, alleviating environmental problems, and enhancing customer loyalty for retail

business.

Chapter 2 Literature Review

2.1 Online Shopping

2.1.1 The Origin of Online Shopping

Distance shopping was pioneered in the United Kingdom in 1979 by entrepreneur Michael Aldridge. He connected a domestic television set to a real-time transaction processing computer via a telephone line and invented what he called telephone shopping (Jusoh & Ling, 2012). A paper by Aldrich (2011) said "Redifon found a business-to-business market for online shopping in 1981 and a business-to-consumer market in 1984"(p. 1). This novel concept foreshadowed that e-commerce changed the way the world did business. It wasn't until August 11, 1994 that the first Internet-based retail transaction took place. The way we shop began to be subtly reshaped by the Internet (Lewis, 1994).

2.1.2 The Development of Online Shopping

When the Pew Research Center began systematically tracking Americans' Internet use in the early 2000s, about half of adults were already socially active via the Web (see Figure 2.1). In 2019, nine out of ten American adults use the Internet (Internet/Broadband Fact Sheet, 2019).
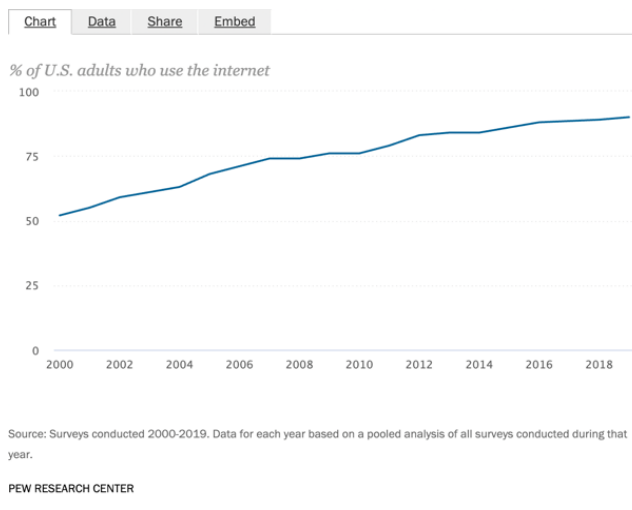
Figure 2.1 Percent of U.S. adults who use the internet, 2000-2019

(Internet/Broadband Fact Sheet, 2019)

The Internet is the cornerstone of e-commerce (Jaller & Pahwa, 2020). The retail industry has witnessed massive growth in e-commerce with the advent of the internet. The rise of online shopping has driven an unprecedented shift in business models for consumer goods manufacturers and retailers. "ABI Research predicts that E-commerce will continue to take share from physical stores and occupy a market share of over 25% of total retail sales" (Bay, 2017, para. 4). Due to rapid advances in online technology, brick-and-mortar stores are no longer the only option for everyday shopping for consumers around the world. In 2015, a Pew Research Center survey of U.S. adults finds that "roughly eight-in-ten Americans are now online shoppers: 79% have made an online purchase of any type, while 51% have bought something using a cellphone and 15% have made purchases by following a link from social media sites" (Smith & Anderson, 2016). The need for online commerce has become indispensable for modern youth. The rapid update of e-commerce continues to meet the ever-changing purchasing needs of people and continues to respond to the tastes of modern consumers. The development of online commerce plays an important role in the socio-economic life of the society, the new model of home shopping has expanded the identity of retailers, and physical stores are no longer a threshold for retailers. Virtual online stores help retailers save on space costs, management costs, and labor costs.

2.1.3 The Customer Behavior of Online Shopping

"One important advantage of using e-commerce technologies is largely determined by the convenience and ease of shopping, the ability to compare alternatives, the search for more favorable price offers, and a number of other factors " (Panasenko et al., 2019, p. 3). Consumers can browse shopping websites from their cell phones or computers to select and purchase the

products that they need without leaving their homes. The diversity of products is no longer limited by geography, and users spend less time comparing prices, appearance, functionality, and other characteristics against a wider range of products of the same type. The path to purchase has changed as a result of the Internet. Consumers still go through the same stages of awareness, consideration, conversion, and evaluation, but the information in each stage has changed. "Awareness: they first became aware of or had a desire for the product. Conversion: they were deciding where and when to buy the product. Evaluation: After they made the purchase" (Kruh et al., 2017, pp.14-22). Sophisticated pages make users curious about products, and users repeatedly compare the advantages and disadvantages of online and offline products, eager to make an informed choice in the course of their investigation.

According to the survey from Pew Research Center, it found seven different important factors when shopping online for the first time, "Compare prices from different sellers; Be able to ask questions; Buy from sellers they are familiar with; Look at or try the product in person; Get advice from people they know; Read reviews people have posted online; Buy online without making trip to the store" (Smith & Anderson, 2016, para. 3). When consumers find that they can get the same quality product at a lower cost, they develop intent to buy (To, Liao, & Lin, 2007). Comparing prices is the factor that consumers perceive as the most beneficial in the online purchasing process, so the difference in price is the ultimate reason why most Americans make online purchases (Smith & Anderson, 2016).

Some researchers argue that price wars are no longer enough to satisfy Millennials' desirous consumers. To create loyalty with Millennials, brands need to cover the basics and provide top-notch customer service through social media channels. Thus, Millennials engage in entertaining

and knowledgeable communication through brands, and gamification or exclusivity elements can better create product and brand awareness (Kruh et al., 2017).

More retailers are joining the e-commerce race and offering enough products or having attractive web pages is no longer enough to stand out from the competition. Savvy online retailers are thinking about the human connection and creating memorable online experiences. Users feel emotionally unique and special, creating not only sales, but also emotion, brand connection and loyalty (Dinca-Ionita, 2021).

2.1.4 The Environmental Effects of Online Shopping

The emerging e-commerce business model is a mixed blessing, bringing convenience and more choice to users and opening up a new market for retailers, but it also poses challenges in terms of environmental sustainability (Furlong, 2016). Although the environmental impact of e-commerce has attracted attention in recent years, the available knowledge and possible solutions on this issue are very limited. Usually, companies that aim to build a sustainable image change their production method processes to reduce waste and pollution, but the product itself is not the only way to reduce environmental impact (Bertram, & Chi, 2018).

Due to the inability to physically see, feel, and try on the product when purchasing products online, online retailers have a return rate of approximately 30% of total purchases (Dua, 2015). There are many reasons for returns, the primary one being delivery issues, where items that are damaged or broken in transit must be returned. Another key reason is that the item does not match the description or customer expectations. In order for customers to make more informed purchasing decisions, retailers must provide more detailed product information and vivid images (Charlton, 2020). The most efficient way of addressing returns is the package carrier altering their normal delivery route. To reduce returns, fast fashion company ASOS has begun using

software tools to match customer sizes with product sizes offered by E-tailers, a technology that has reduced ASOS' return rate by about half (Bertram & Chi, 2018).

One study conducted by Sealed Air revealed that 56% of e-commerce customers have questions and concerns about their merchandise packaging, with being unable to recycle and difficult to dispose of being two of their valued and unhelpful aspects (Furlong, 2016).

"The use of a 100-gram corrugated cardboard box and up to 33 grams of insulation material for one package can add up to CO2 emission of 181 grams. This impact is much greater than that of brick-and-mortar packaging such as plastics bags, which emit less than 11 grams of CO2" (Bertram & Chi, 2018, p. 1). Many of the materials used to package products are not recyclable, which accounts for 29.8% of waste in the United States, or 75 million tons per annum (EPA, 2015).

Bertram and Chi's (2018) research suggests that online shopping may already be more environmentally friendly than traditional retail in many ways, but there is still potential for e-commerce retailers to continue to improve their environmental sustainability (Bertram & Chi, 2018).

Figure 2.2, below, provides the breakdown of Municipal Solid Waste (MSW) generation by material. Paper and cardboard are the largest components of household waste generation at about 23 %, while food comes in second at over 21% (Advancing Sustainable Materials Management: Facts and Figures Report, 2021).

Figure 2.3 provides the breakdown of MSW recycling by material in 2018. Paper and cardboard make up the largest component of recycled materials, accounting for nearly 67% (Advancing Sustainable Materials Management: Facts and Figures Report, 2021).

Figure 2.4, below, provides the single product with the highest recycling rate in 2018 is lead-acid batteries (99%), followed by corrugated cardboard (96.5%) (Advancing Sustainable Materials Management: Facts and Figures Report, 2021).
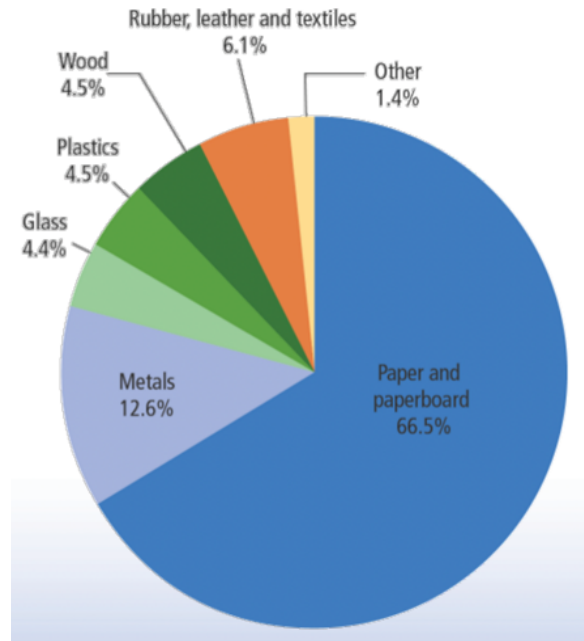
Figure 2.2 Total MSW recycling (by material), 2018. 69.1 million tons

(Advancing Sustainable Materials Management: Facts and Figures Report. 2021)
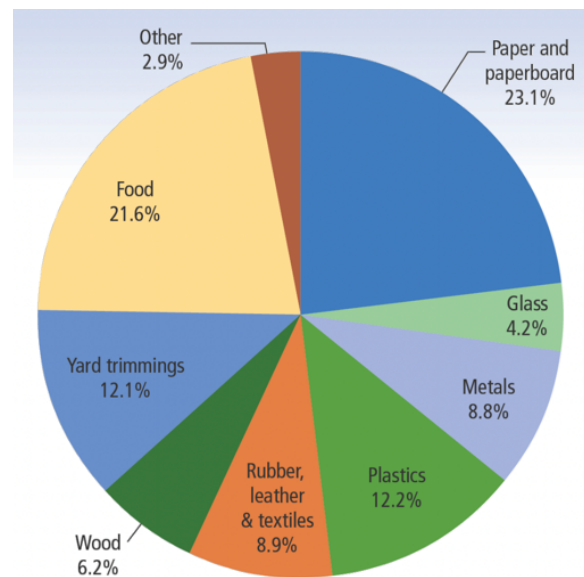
Figure 2.3 Total MSW generation (by material), 2018. 292.4 Million Tons

(Advancing Sustainable Materials Management: Facts and Figures Report. 2021)

*Does not include combustion with energy recovery
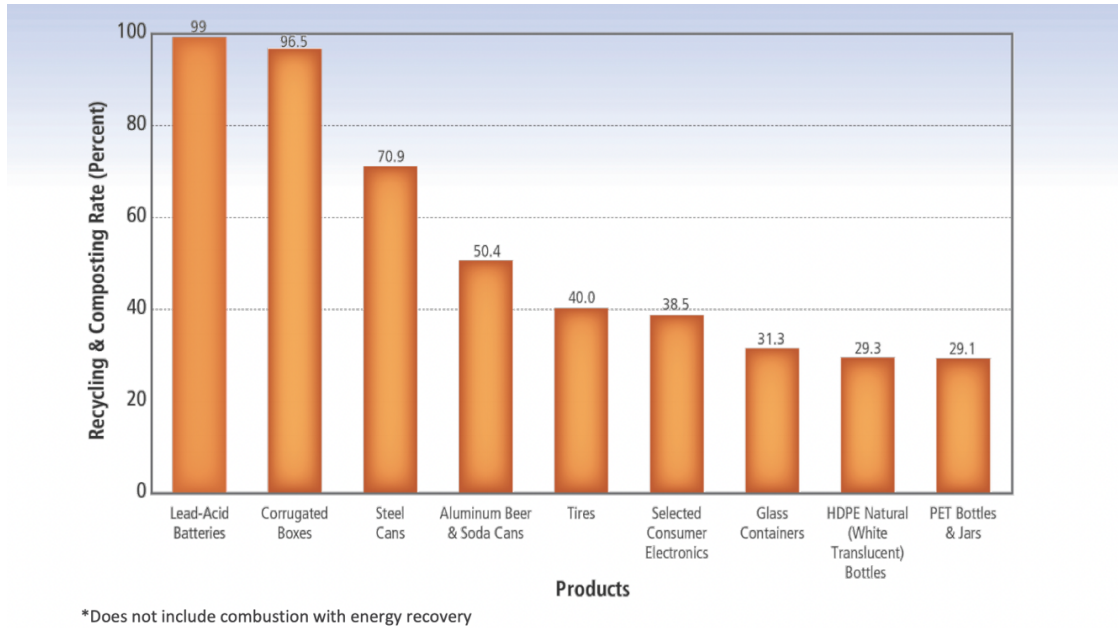
Figure 2.4 Selected products with high recycling rates, 2018

(Advancing Sustainable Materials Management: Facts and Figures Report. 2021)

These three charts show that the largest contributor to household waste is paper and cardboard, which is obviously also highly recycled and utilized. But there is no denying that the growth of e-commerce has increased the share of corrugated cardboard in household waste.

The reporting Advancing Sustainable Materials Management data has tended to focus on analyzing MSW trends in generation and management, materials and products, and economic indicators affecting MSW rather than giving solutions to or mitigating environmental pollution problems.

2.1.5 Improvement Strategy - More Sustainable Future

In 2002, EPA published "Beyond RCRA: Waste and Materials Management in the Year 2020"-commonly referred to as the 2020 Vision. One of the key findings was the need for society to shift its focus from waste management to materials management (Allen et al., 2009). In January 2007, the directors of EPA's waste and chemical programs convened the present 2020 Vision Workgroup to **build an analytic framework**. Because the complex economic system of the United States results in the transformation of hundreds of materials into uncountable products, it is impractical to retrofit a large number of materials and products together. The workgroup has developed a framework for the relative ranking of materials, products, and services consumed in the United States from a life-cycle perspective, accounting for the environmental impacts, resource, use (material, energy, water), and waste (Allen et al., 2009). To accomplish the shift to life-cycle materials management, the working group focused on industrial and product design, reducing the use of virgin materials and reusing materials that can reduce the overall system impact. Therefore, all segments of society, government, business, and consumers need to actively cooperate and work to ensure that materials are used more effectively and efficiently. Using a sound life-cycle approach to materials reduces the environmental impact of material use while improving economic competitiveness.

Materials management differs from waste and chemicals management in that the former seeks to address and reduce life cycle environmental impacts from the manufacture and consumption of materials and products.

Investigating the life cycle of materials means understanding how materials flow through the environment and the economy, as shown in Figure 5 below. First, the flow of materials begins with the earth itself, which provides an abundance of resources (renewable and non-renewable). Second, most extracted materials enter the supply chain of products and services or

are used for energy production. Third, through product design and manufacturing, materials are processed to create products and services that meet the needs of society. Fourth, some raw materials and all products and services are then used or consumed by businesses or individual consumers. Fifth, at the end of their lives, most products are collected, processed and reused. Sixth, the remaining materials that cannot be recycled are thrown away as waste (Allen et al., 2009).
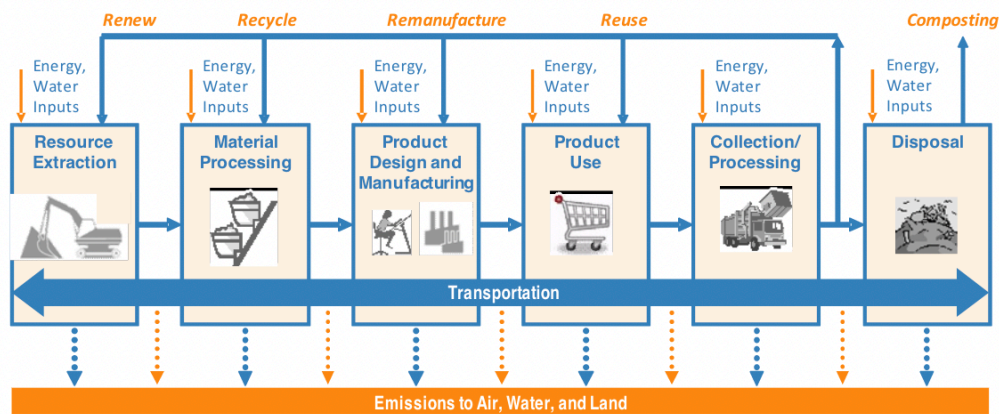
Figure 2.5 The flow of materials (Allen et al., 2009)

Each step of the material flow requires energy and water as inputs, and each step has an environmental impact on air, water and land. Throughout the transformation process, materials and products need to be transported. As a result, this material flow has a wide range of impacts on the global, national and local environment.

Encouraging waste minimization, greater recycling, using more recycled content, and identifying beneficial uses for materials that may be discarded through collaboration is one of the ways that the Environmental Protection Agency (EPA) and most states promote waste disposal (Allen et al., 2009).

EPA's work with the Sustainable Packaging Coalition (SPC), created a set of sustainable packaging design guidelines and compass design tools to create more sustainable packaging. (See Figure 2.6.) Packaging designers have made progress in both the early and traditional parts of the material life cycle by understanding the process of material flow. For example, green chemistry is to reduce or eliminate the use of individual chemicals. To move more aggressively toward the goal of sustainable packaging, designers need to make additional efforts to reduce the environmental impact of materials and products throughout their life cycle in order to develop more effective mitigation strategies.
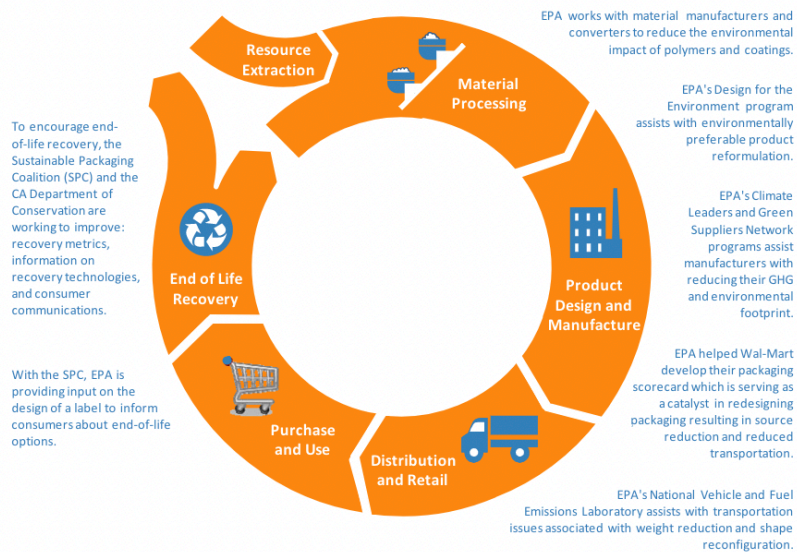
Figure 5: Example of a Life-cycle Materials Management Approach for Packaging
Adapted from "Design Guidelines for Sustainable Packaging," Sustainable Packaging Coalition, GreenBlue, 2006

Figure 2.6 Example of life-cycle materials management approach for packaging

(Allen et al., 2009)

Designers need to provide new ways to better integrate currently separate programs to address how materials are extracted, designed, manufactured, used and disposed of for end-of-life products.

EPA advocates that product recycling rates be increased through improved product design (Allen et al., 2009). The material flow diagram shows that the effort in the upstream part of the material system chain, as conveyed by the consumer perspective, will be terminated by the consumer in the midstream part of the pre-consumer "life" continuum. In 2002, the EPA launched the Resource Conservation Challenge (RCC) to emphasize a strong focus on upstream efforts to reduce and change material use, promoting more sustainable materials and designs that can be more easily recycled or refurbished. They can generate untold innovation, improve lives, meet society's needs without overexploiting resources (renewable or non-renewable), and keep economic activity within the absorptive capacity of the environment (Allen et al., 2009).

2.1.5.1 Environmentally Friendly Packaging (Ecommerce Giant Amazon)

Amazon has changed the way Americans shop. With 49.1 percent of the U.S. e-commerce market, Amazon is shaping industry norms and determining what shoppers expect from online retailers ("Top 10 US Companies"*, 2018).

Amazon launched its Prime membership program in 2005, and the qualification was set up to encourage consumers to shop more frequently online. Membership benefits such as free shipping, fast 2-day shipping and an easy return process have increased consumer loyalty and reliance on Amazon. Experts believe these free benefits come with hidden environmental costs that are not shown on the checkout page (Nguyen, 2018). More than 100 million users pay $119 per year for a membership in order to have a more efficient shopping process, increasing the likelihood that items will be purchased casually, impulsively, emotionally, and on a trial basis. Researchers have found that more transportation, exhaust emissions, and packaging waste are increasing congestion in our cities, pollutants in the air, and boxes sent to landfills.

Brent Bell, vice president of recycling, believes corrugated box is a relatively easy material to recycle. "Our next big challenge is an education campaign, showing people how to break down boxes to fit as much as you can. When the recycling bin gets full, the leftover is diverted to landfill," Bell said (Nguyen, 2018). According to an analysis done by USA Today, more corrugated cardboard is going to the landfill rather than recycling centers. According to the American Forest and Paper Association, U.S. box consumption grew by 3.5 percent in 2017, but the number of boxes recycled in the U.S. fell by 300,000 tons from previous years (Weise, 2018).

Figure 2.7 Environmental cost of packaging waste (Nguyen, 2018)

Amazon has made many efforts to minimize its environmental impact on packaging sustainability. First, Frustration-Free Packaging was introduced in 2008, an innovation designed to reduce waste and delight customers with easy-to-open, 100% recyclable packaging. Amazon's worldwide packaging team to invent more sustainable packaging includes four features:

Designed to Reduce Waste, Lab Tested Protective Design, Recyclable Packaging Materials and Easy to Open (Amazon Frustration-Free Packaging, n.d.). Improving packaging functionality and user experience through the Frustration-Free Packaging Program Experience means shipping products safety, no plastic clamshells, no wire ties, and 100% curbside recyclable to positively impact product sales and the environment.

Amazon claimed, "Since 2015, we have reduced the weight of outbound packaging by 33% and eliminated more than 1 million tons of packaging material, the equivalent of 2 billion shipping boxes" (Amazon Frustration-Free Packaging, n.d.)

Benefits to customers:

Frustration-Free Packaging must be easy to open - in 120 seconds or less – to eliminate what Amazon terms 'wrap rage' (Amazon Network, 2021). The packaging increases the likelihood that the item will reach the customer and be intact. The simplified packaging materials help generate significantly less waste and reduces the time customers spend organizing and handling packaging.

Benefits to sellers:

Sellers with frustration-free packaging are also less likely to have to replace items that have been damaged in transit. The changes educe sellers' packaging material costs due to the simplified use of materials involving frustration-free packaging (Amazon Network, 2021). An improved customer experience results in improved product reviews and seller feedback, and increased customer satisfaction and loyalty to the brand.

Benefits to environment:

All packaging components are 100% recyclable for ensuring packaging is designed to reduce waste (Amazon Network, 2021). Because packages take up less space for shipping, more

items can be shipped per unit of cost, reducing fuel emissions that contribute to environmental pollution caused by fuel emissions.

It is worth noting that Frustration-Free Packaging is not perfect. Despite all the benefits this design provides for retailers doing business on Amazon, certain drawbacks may not be overlooked (Godwin, 2020).

Inhibiting brand differentiation is an obvious problem, and brands spend a lot of time and cost to design more attractive packaging. But with the help of Amazon's uniform packaging covering brand markers, customers may not recognize and differentiate them and the significance of marketing that brand will be lost.

Figure 2.8 New frustration-free packaging of Amazon (Wilner, 2011)

Second, the recyclable paper padded mailer was created to protect products during shipping while taking up less space in transit (Improving Our Packaging, n.d.). Mailers are often used as

pouches for paperwork and documents, which are much less supportive than three-dimensional boxes. Through careful research by Amazon's experts, a recyclable padding material was created. "It creates a puffy material that's lightweight," said Justine Mahler, senior manager with Amazon's (Quigg, 2019). The new recyclable padded mail not only improves the protective properties of otherwise ordinary mail, but also increases the number of deliveries on each carrier by replacing bulky, space-consuming cardboard boxes, for the sake of less fuel burn and a smaller carbon footprint.

In the subsequent delivery process, due to the uniform distribution of filling materials, practicality outweighs convenience, and hard mail increases the degree of difficulty in packing and the process is more time-consuming. Amazon's packaging team provided an excellent solution by redesigning the distribution of the cushioning material in a style that creates gaps to form natural bending points, making it easier for their employees to use (Quigg, 2019).

Figure 2.9 Amazon's new recyclable mailer (Quigg, 2019)
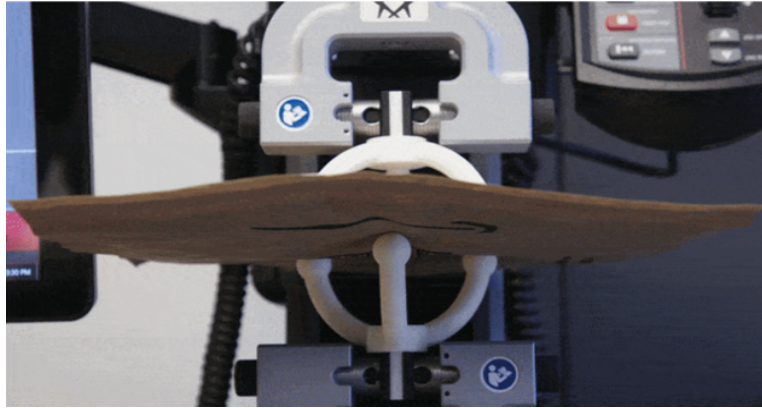
Figure 2.10 Amazon's new recyclable mailer (Quigg, 2019)

2.2 The Consumer Motivation of Shopping

Keller and Lehmann (2006) pointed out the three-step theory of consumer motivation formation: the first step is the perception of knowledge about the brand (e.g., the perception of access to information related to the purchase of brand products), which forms the customer's perceived value; the second step is the evaluation (reasoning about the purchase process or comparison with other brands), which forms the brand attitude; and the third step is the generation of purchase motivation, which forms the purchase intention.

"Utilitarian (extrinsic) and hedonic (intrinsic) factors are the two important factors that affect online shopping intention"(Cheema, et al., 2013, p. 2). The process or experience of consumption is increasingly influencing consumer decisions, and consumer perceptions of shopping are gradually shifting from "product-oriented" to "experience-oriented".

Findings from a large-scale study indicate that Utilitarian value is a review of financial benefits and costs whereas hedonic value is a review of experiential costs and benefits (Lee & Overby, 2006). Babin et al. (1994) state that hedonic shopping value can influence unplanned shopping behavior, whereas utilitarian shopping value does not.

2.2.1 Utilitarianism Consumption

Utilitarian motivation has been defined as task-critical, rational, decision-effective, and goal-oriented (Ahtola & Batra, 1991; Engel et al., 1993; Hirschman & Holbrook, 1982). Utilitarian products mainly provide basic functions to consumers, consumers who purchase utilitarian products are more rational and dispassionate, and they remain objective in the face of multiple products of the same type and fancy packaging in the market.

2.2.2 Hedonism Consumption

"Hedonistic **(**or hedonic**)** consumption focuses on consumer behavior which seeks sensory pleasures or hedonistic benefits provided by interaction with goods or services" ("Hedonistic Consumption", 2020). Hedonistic products offer consumers more experience, fun and excitement. The benefits of hedonic motivation are experiential and emotional. Hedonistic consumers enjoy shopping because they enjoy the process of shopping. It is not about obtaining a physical goal or accomplishing a task (Babin et al., 1994). Research studies on hedonism have been implemented mainly in physical stores, where shopping behavior predicated on hedonism is often influenced by the on-site environment and evokes complex psychological mechanisms within the consumer. For example, retailers enhance the pleasure of the shopping experience by changing the location of displays, improving customer service, and other strategies beyond the product itself. As the marketplace gradually shifts to e-commerce platforms, the research of Mathwick et al. (2001) explores the experiential value of online shopping, where the intrinsic experiential value includes enjoyment and aesthetics. This experiential value should be considered as hedonic value. Some online e-commerce companies follow the trend to launch hedonic products that will use hedonic strategies to attract sensual consumers in order to gain traffic and attention.

2.2.3 The Relationship Between Consumerism and Brand Attitude

Park et al. (1986) point out that the benefits of branding can be calculated by categorizing utility and hedonic products. Studies have shown that hedonic products or brands have higher premiums than utilitarian products.

The study points out that hedonism has a greater impact on consumer attitudinal behavior purchase decisions than utilitarianism. This means that brand attitudes depend on consumers' perceptions of the experience of using the branded product. From page browsing, having the motivation to consume, placing an order, shipping, waiting, receiving the product, opening the package and using the product, this series of processes will influence the consumer's experience of the brand attitude. When consumers perceive the brand value of a product, the hedonic value has a more positive impact on the brand attitude compared to the utilitarian value. This paper focuses on the user's emotional experience when the product is finally delivered, and the consumer receives the package, opens the package, and reuse the package. The paper aims to help retailers enhance the hedonic factor of products to improve consumers' perception of brand hedonic value and form positive brand attitudes.

2.2.4 Brand Personality

When discussing commercial brands, it is the symbolic or value-expressive functions of the more abstract qualities that provide culture-specific meanings, commonly referred to as "brand personality" attributes (Aaker et al., 2001). Brand personality is abstract and has the function of value expression. How to show brand personality? Designer can use abstract color collocations to express brand personality with an intuitive color.

Brand recognition is the consumer's ability to identify or associate a product with a brand. Marketers establish brand recognition by using a specific formula of colors and shapes to form a

brand mark (Aaker et al., 2001). The key is consistency. Specific colors and shapes make it easier for consumers to have faster, clearer memories, and successful color recognition, allowing consumers to choose faster.

In actual fact, consumers' responses to the design and color of packaging are assumed to be converted into brand preference; simply put, the decision to opt for a brand is based on aesthetics of packaging (Kauppinen-Räisänen, 2014). Product packaging marketing is related to the effectiveness of the brand, and the improvement or success of product packaging will affect the positioning of the brand.

Personalities of people are similar to the way the general population thinks of brand personalities whether it is positive or negative (Meyers et al.,1998). The more consistent a brand personality is with the consumer's personality or desired personality, the more consumers will prefer the brand.

This package design, along with a solid marketing strategy will result in the desired brand recognition that will later turn to brand leadership (Meyers et al.,1998). A good product packaging is also a marketing strategy that brings awareness to brands. The purchasing power information and business expectations will put the brand in the market.

2.2.5 Influence of Consumer Identity on Brand Preference

As described by Ilaw (2014), "the congruence between one's self-concept and the product brand's image significantly influenced consumer behavior, particularly brand preferences" (para. 2). The authors showed that both variables, self-image and social identity, have a significant impact on brand preferences. A set of four studies conducted by Chaplin and Roedder (2005) found that personal image building begins to take shape in early adolescence. As every individual undergoes identity formation, they need to look for representative symbols that can

further develop or define their self-concept (Mihalcea & Catoiu, 2008). The brand image becomes one of the vehicles through which individuals express themselves and communicate their inner values. The similarity between brand attributes and self-image affects their brand preference scores.

In social identity theory, a social identity is a person's knowledge that he or she belongs to a social category or group (Hogg & Abrams, 1988). A social group is a composition of individuals who are members of the same social identity or social category (Stets, & Burke, 2000).

The two important processes involved in social identity formation, namely self-categorization and social comparison (Hogg & Abrams, 1988). The self-categorization emphasizes the similarities between the self and other in-group members, and the differences between the self and out-group members. the social comparison emphasizes the dimensions of self-enhancement outcomes achieved through the positive evaluations received by in-group members. Consumers have a greater probability of accepting the brand meaning associated with their own group. "The current study found a statistically significant relationship between social identity and brand preference " (Ilaw, 2014, p. 8). Members of minority groups value the social uniqueness of their group more than members of the majority group. This means that minority individuals rely more on social feedback from within their group than their subjective view of themselves when determining their self-concept, and they tend to have group-directed behaviors that influence their brand preferences. To ensure that brands receive favor in untapped markets, marketers must develop brand images that are highly compatible with the key characteristics of the target audience's self-concept. Ilaw (2014) showed that self-image congruence and social identity are not the only factors that influence brand preferences, but conceptual investigations that target consumers' self-image can make marketing strategies more effective.

2.3 The Experiential Aspects of Consumption

According to Hirschman and Holbrook, authors of "The Experiential Aspects of Consumption: Consumer Fantasies, Feelings, and Fun," package aesthetics are a part of the shopping experience that consumers appreciate and enjoy (Meyers, et al.,1998). When consumers are attracted to the brand or packaging, the customer's recognition of the product will increase. The chosen brand or packaging reflects consumer values. When consumers appreciate the packaging, the price demand will also be reduced, and at the same time, the consumer enjoyment process will be improved.

In Norman's book (2004) *Emotional Design: Why We Love (or Hate) Everyday Things,* he asserts that the emotional element is more important to the success of a product than its practical element. Aesthetic elements that appeal to emotions are key elements in the development of "user-centered" design. Norman suggests that there are three levels of design: visceral level (appearance and pleasure to see), behavioral level (usability and performance), and reflective level (the meaning, self-image, and message of a product).

2.3.1 The Visceral Level

The visceral level embodies the sensory aspects about how things look, feel, smell, and sound (Norman, 2004). In the visceral level users focus on the part of the product that can be perceived directly. For example, color enhancement is the most obvious attraction that captures the user's attention. " Vivid, highly saturated colors are often perceived as exciting making them popular in branding and package design." (Mead & Richerson, 2018, p. 1). Color is the customer's intuitive feeling of taste and healthy choice. Unhealthy foods are usually displayed in vivid, high-saturation packaging, while healthy foods are usually displayed in low-key, low-saturation colors. Good product packaging design matches with specific colors under specific

37

tastes. Even if customers don't read words, they can unconsciously correspond to tastes through color recognition. The color of food packaging is more valuable and persuasive than complex words, and it is one of the key factors for consumers to choose products (Mead & Richerson, 2018).

For packaging, it should cover the basic package design principles. Designers should focus on issues such as whether the appearance is attractive enough for consumers, whether it can visually express product information, and whether it provides enough protection for the built-in product. All of these factors affect the unconscious emotional feedback that consumers give the moment they get the delivery "The visceral quality of a product establishes the first emotional connection between the user and the product " (Aftab & Rusli, 2017, para. 8). The user's attitudes, emotions and feelings do not provide a comprehensive perception of the product but can lead to an emotional response to the product's appearance.

2.3.2 The Behavioral Level

At the behavioral level, at which users form their perceptions of a particular product through use (Norman, 2004), Users' attention shifts from the appearance of the product to the essence of functionality. If the experience is at the instinctive level the user will gain some expected value from using the product. Then the behavioral level of experience would be the user's real feelings during the experience of the product. For example, for user interface design investigators believe that a significant portion of the success of any software depends upon whether its user interface, the screens, controls, widgets, menus, and dialog boxes allows the user to easily achieve her goals. The less these devices get in the way, the more the user is able to concentrate on her goal (Stone et al., 2005).

When the product enables the user to accomplish the goal with minimal difficulty and less conscious effort, their emotions are likely to be positive. Conversely, when the product limits the user, the user is forced to shift or adjust their goals based on the limitations of the product, or makes it so that the user needs to always be too focused when using the product, the user is more inclined to experience some negative emotions.

Product semantics investigators with similar views found that the word "product semantics" came into use in 1984 (Krippendorff, 1989, p. 4). It is used in the business world as a way to add new value to a product, promising increased sales or manipulation to improve consumer satisfaction. Product semantics is concerned with the human interface, the layer of cognition that focuses on how the user experience interacts with the environment, the layer of cognition that makes things understandable, meaningful, transparent, alive and usable (Krippendorff, 1989).

For packaging, designers should focus on the interaction between the user and the package. Ease of use is the most basic design principle of a good product, whether the process of opening the package is smooth and satisfying for the user, how quickly and accurately the goals and objectives of the product are achieved, how many mistakes the user makes in the process; how well the product adapts to both skilled and inexperienced users, and other issues. The interactive experience between the user and the package not only enhances the satisfaction of use but also links the package closely to the product.

2.3.3 The Reflective Level

The reflective level at which the product has meaning for consumers accounts for how consumers maintain an innate sense of identity through the consumption of the product over time (Norman, 2004). The reflection level is the first step of the continuous connection between users and products, and it is a deep reflection on the visual level and the behavioral level.

Norman (2004) pointed that there is on other distinction among the levels: time. The visceral and behavioral levels are about "now," the feelings and experiences while actually seeing or using the product. But the reflective level extends much longer – through reflection you remember the past and contemplate the future. Reflective design, therefore, is about long-term relations, about the feelings of satisfaction produced by owning, displaying, and using the product.

Reflective is the highest level of emotional state of design, which has a great impetus to the spread of products. Users who buy products with reflective level will not easily consume impulsively for the appearance of products, nor will they choose products based on the principle of taking functionality as the highest. "Emotional design should be able to sustain people's empathy towards products" (Aftab & Rusli, 2017, para. 10). The user's own feelings, values, personal emotions and social background are all factors that affect the product positioning. Users will analyze the potential value of products (brand culture, product concept, etc.) to determine its personal significance to users. Users move from initially thinking and asking, "how about this product?" "Do I like this product?" to even ask "Is this product suitable for me?" "What can this product bring me?"

For example, Apple's first-generation smartwatch was riddled with functionality and usability issues, but that didn't stop Apple from generating the world's second highest revenue in the watch industry in its first year of sales. User trust in the brand (the reflective level), Apple's system habits (the behavioral level), and appearance preferences (the visceral level) all reduce user dissatisfaction with functional difficulties and flaws in the product because users believe they will get other non-functional benefits. The self-expression that the product can bring to the

user at the reflective level, i.e., the ability to express oneself and to enhance and shape one's image, can overpower limitations.

For packaging, designers need to do a detailed market positioning for the user analysis of the product and develop a sales strategy with a reflective level to guide consumers to understand the brand culture and product concept. For example: the concept of green is a win-win thing, green packaging both for the improvement of the environment and the dissemination of the concept of green consumption to consumers. By using biodegradable materials, recyclable materials, structural design with multi-function, etc., the possibility of making packaging disposable waste is reduced. Green packaging can attract consumers with green consumption concept, advocacy nature, and the pursuit of health. At the same time, it calls on users to focus on environmental protection, resource and energy conservation, and sustainable consumption while pursuing a comfortable life.

2.3.3.1 Emotional Durable Design

Consumerism dominates our modern society and has changed the way we make, buy, and sell. Kwan (2012) analyzes four main reasons (design, time, price, and uniqueness) for the consumer's wastefulness. First, designers are detached from the production process to design irresponsible products. Similarly, consumers are not involved in the design and production process, which makes it difficult for them to connect emotionally with the product. Second, in order to maintain ongoing consumption, more products that are not durable are produced and consumers do not have enough time to emotionally connect with the product. Third, "The selling price of products is far too cheap, the cost on the environment, of producing and transporting the products, is usually not counted in the manufacturing cost" (Kwan, 2012, p.3). This leaves consumers in a dead-end consumption cycle of replacing old products with new ones, and this

transient hedonism leaves them with an environmental consciousness of the environment to the back of their minds. Fourthly, the standardization of mass production of products, which imposes great constraints on manufacturing methods, time, materials, and labor costs, has depressed the market demand for a sense of product design. The significance of the consumer's search for the uniqueness of the product itself has been lost. By studying several Japanese Aesthetics principles, Kwan (2012) found that they are committed to using philosophical aesthetics to guide users to reflect and change, and to inspire designers to design emotionally sustainable products. An example of a design that encourages users to love aging symbols is the "Stain" teacup designed by Bettan Laura Wood (Figure 2.11). The more times the teacup is used and the longer it is used, the more stains are placed and the darker the color becomes. This hidden design pattern will be revealed and completed based on the user's involvement. Good design allows the user to develop an emotional attachment to the object (Kwan, 2012).
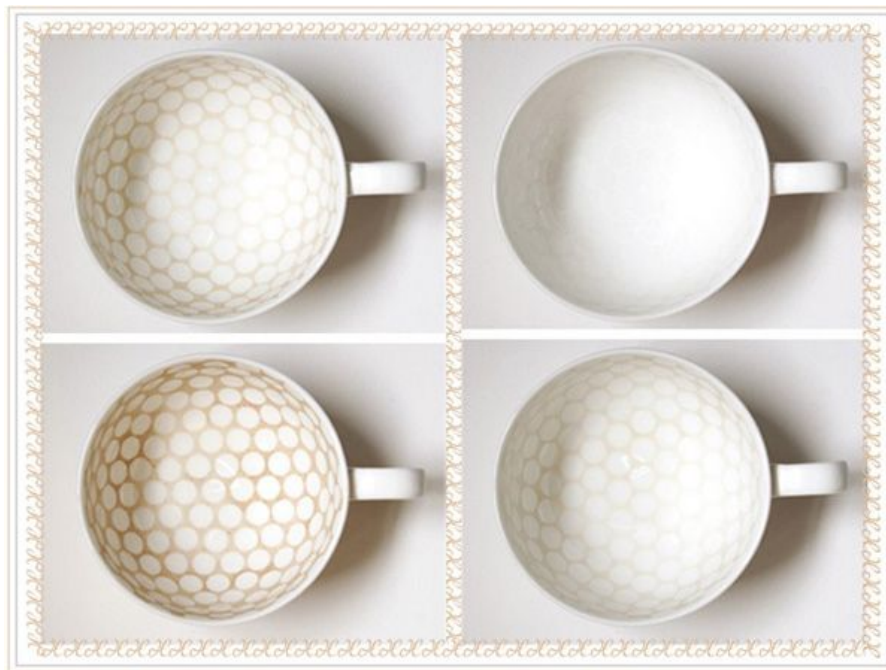
Figure 2.11 "Stain" teacup (Kwan, 2012)

2.3.3.2 Labor and love

How labor produces love: When you create a particular product with your labor, even if it is not done well, you value the end result more than if you had not put any effort into the creation (Norton et al., 2012). The seminal work on self-efficacy specifically noted that successful completion of tasks is an important means for people to achieve their goals and thus feel empowered and in control (White, 1959).

For example, the "IKEA effect" is a cognitive bias in which people overvalue the product they are involved in creating, demonstrating that the more effort people put into pursuing it, the more they value it. First, more companies are increasingly inclined to allow consumers to customize their products, in part because consumers are willing to pay a premium for hedonistic products that they tailor to their specific preferences (Franke & Piller, 2004). Second, some studies have shown that consumers rate products they design themselves more highly than products designed by others. This exceeds the value generated by matching their preferences (Franke et al., 2010). Thus, part of the value also comes from the opportunity to show off their products to others. Even with utilitarian products, the user's labor invariably leads to an increase in the value of their product in the minds of consumers.

2.4 Japanese Philosophy

2.4.1 Philosophical Significance of *Wabi-Sabi*

"*Wabi-sabi* nurtures all that is authentic by acknowledging three simple realities: nothing lasts, nothing is finished, and nothing is perfect" (Powell, 2004, p. 1). It represents a lighter approach to transience, nature, and melancholy, loving the imperfections and flaws of everything in the world.

Wabi means the beauty of simplicity and elegance and contains more inward, subjective and spatial philosophies. It is the simplest, most rustic and natural state of things, such as pottery that retains traces of handiwork, rust or fragments. *Sabi*, on the other hand, means time is unpredictable and everything is impermanent, and *Sabi* focuses on the emotions that arise from time change. It contains more outward-looking, object-oriented, and time-based aesthetic concepts (Powell, 2004). As Japanese cherry blossoms fall, no one can stop the phenomenon of its end of life, but people can continue to appreciate the moment of its fall, the pink soil under the cherry tree, can cherish it more with life. The two together form a unique Japanese philosophical concept, aesthetic emotional culture (Durston, 2016).

2.4.2 Origin of *Wabi-Sabi*

Japan is an island nation, completely surrounded by the sea and not connected to any country by land, and about 75% of its territory is mountainous and hilly. Because of its geographical location, Japan is often subject to devastating natural disasters (earthquakes, tsunamis, volcanic eruptions, etc.) that do not follow the exact rules.

As Park (2005) writes in his article "Buddhism and Japanese Aesthetics", "wabi and sabi are embedded in a deep sense of mortality" (p. 7). Both concepts evoke a contemplative mood of solitude, a sad concern for the passage of time, and a sensitivity to the place of humans in the natural world (Park, 2005). Yet Japanese culture does not see natural disasters as merely a dangerous and destructive force, nor is it defeated by feelings of sadness and loneliness. They are deeply aware of the importance of nature and choose to stop fighting against it and calmly accept the environmental changes it brings. Trying to make the most of their lives by living in harmony with nature, they focus their attention on the transient beauty of natural things as they happen.

2.4.3 Wabi-Sabi Triggers the Reflective Level

Another description of *Wabi-sabi* by Juniper (2011) notes that, the *Wabi-sabi* object or expression can bring about a sense of serene melancholy and a spiritual longing to people. It is the first step toward opening up inner visions that can change a life (Barton, 2016). Creating design concepts that sustain a long-term relationship between the user and the product requires that the product provoke reflection on the past with the user and reflection on the future (levels of reflection). "Wabi-Sabi suggests the beauty of a product comes from intuition and non-intellectual feeling" (Aftab & Rusli, 2017, para. 18). It uses an objective perspective to see things; there is no real good or bad, beautiful or ugly, useful or useless. Each person's view of things or products is a subjective view based on the individual's own circumstances that lead to it.

Any product will change over time. Designers should create products with a reflective philosophy in order to reduce the probability that users will abandon imperfect and non-functional products due to changes in needs, personal preferences, surroundings and other factors. "Products should be physically robust and adaptable enough for people to use in a long term and help repurposing discarded products with the same or different function" (Aftab & Rusli, 2017, para. 16).

2.4.4 The Aesthetics of Wabi-Sabi

The aesthetics of the *Wabi-Sabi* has its roots in Chinese Zen culture, which was introduced to Japan with Chinese Buddhism during the Southern Song Dynasty. Japanese culture is tolerant and seldom exclusive in its religious culture, and as it continues to absorb foreign cultures, it gradually developed its own aesthetics of the *Wabi-sabi*, which has its origins in the Zen aesthetics of nature, simplicity, and emptiness, and is shaped by Japanese culture as a source of beauty. The following anecdote helps to demonstrate the concept: A young Japanese tea

ceremony student studying the art of tea under the tea-master Takeeno Joo, whose job was to take care of the teacher's garden. He cleared the ground of fallen leaves, and then he shook one of the cherry trees so that a few cherry blossoms fell randomly to the ground (Lawrence, 2001, para. 1). The whole process of cleaning the yard by Sen noRikyū, the founder of the *Wabi-sabi* aesthetic, is the original expression of *Wabi-sabi* - neat and natural, without artificiality. Park (2005) noted due to the centrality of nature in Japanese aesthetics, imperfection became valued as a fundamental quality of beauty. Most things in life are characterized by fragmentation, imperfection or asymmetry, which requires one to appreciate the aesthetics of imperfection through an alternative perspective.

The emergence of *Wabi-sabi* aesthetics at the end of the sixteenth century is closely related to the Japanese tea room, where the "tea sage" Sen noRikyū advocated that the tea ceremony should be free of all artificial decorations and pursue simplicity and nature. By applying tea to all aspects of the ceremony, from the tea set to the natural environment, from the way tea is made and consumed to the way it interacts with the environment, Sen noRikyū transforms tea into a moral and aesthetic experience that successfully leads people to think about their imperfect selves and the transient existence of things (Handa, 2013). The spirit and aesthetics of Sen noRikyū's tea ceremony has permeated all areas of Japanese culture for over 400 years and continues to this day. The writings of the Buddhist monk Yoshida Kenkō (1283-1350) represent one of the classical statements concerning the Japanese aesthetics of imperfection: "It is only after the silk wrapper has frayed at the top and bottom, and the mother-of-pearl has fallen from the roller that a scroll looks beautiful" (Park, 2005, p7).

2.4.5 The Design Expression of *Wabi-Sabi*

2.4.5.1 Kintsugi Art

Often associated with *Wabi-sabi* is the art of *kintsugi* - a craft of repairing broken pottery with gold dust or lacquer. The process highlights cracks rather than conceals them, allowing them to become part of the work. Keulemans (2016) studied the "analysis of transformative repair in ceramics using concepts of affect" (p. 1). Kintsugi craft techniques have a broader social or cultural meaning. Bamford (2011) noted that kintsugi is a craft "directed by an ecological" sense of responsibility to care, in which the expression of repair functions as a "powerful attractor" (p. 55). Faced with a break in the surface and structure of the pottery, Japanese artisans do not repair it to perfection because the Japanese cultural philosophy of perceiving nature and preserving the ecological environment makes them less bound to the artistic expression of "naturally occurring" emotions, and not because of the limitations of craft techniques. The Japanese repair craft of *kintsugi* exists in relation to the geological and cultural conditions of Japan (Keulemans, 2016). Keulemans proposed that kintsugi repair is socio-culturally influenced and is an expression of action that starts with the underlying emotion of ameliorating a disaster.

2.4.5.1.1 Contemporary Forms of *Kintsugi*-influenced Design

Keulemans (2016) regarded that *kintsugi's* aesthetic principle comes from its unique use of gold or silver paint in lacquer to beautify the appearance of imperfect ceramic objects (for example, Figure 12). This restoration technique allows the product to be held in high esteem and is often used in culturally significant practices, such as the tea ceremony (Bartlett, 2008). As a repair process, it responds to the Japanese reflection on the concept of waste.

Figure 2.12 *Kintsugi* bowl (Smith, 2020)

Platform 21 is a discussion and exhibition on the topic of repairing at the Dutch interdisciplinary design platform. Designers, artists and the general public are contributing to repairing objects in a way that changes their appearance or function. Platform 21 raises awareness about repairing and integrates the culture and practice of repairing (sustainability) into people's lives and designers' design concepts. However, Platform 21 calls for the act of repairing and the Japanese *Kintsugi* technique has a different meaning of repair. Repairing adds character to a product, teaches people how to make things as well as how to care for them, while repairing gives a sense of fulfillment and control in life (*Platform21,* 2018). The significance of the Japanese *kintsugi* technique is that people should be open to the effects of accidents, and *kintsugi* gives functionality to the repaired object while acting as an emotional trigger by highlighting the existence of defects in a beautifying way.

2.4.5.2 Brand MUJI

The design concept of MUJI from Japan is "no brand design", and the concept of simplicity is used throughout the entire product design, poster design, packaging design, and other aspects. "The "no decoration, no label, no description" is not the loss of product

functionality, but the customization of them as empty containers as the MUJI brand policy, embracing the feelings and thoughts of all people, to pass a simple, minimalist lifestyle to consumers. Through the official website, MUJI has been credited with being "resource-saving", "low-priced", "simple", "anonymous" and "nature-oriented" (無印良品, n.d.). To realize these brand concepts, MUJI offers a unique approach to product development that includes three principles: (1) selection of materials, (2) streamlining the process, and (3) simplification of packaging. These concepts and original product development created process innovation (Masuda, 2019). MUJI uses many industrial materials as well as materials discarded by others because of their appearance, eliminating processes that are not related to product quality, such as sorting, sizing, and polishing, dedicated to the ability to focus costs on producing high quality products. When packaging products, MUJI tries not to decorate them, but to highlight their natural colors and shapes. This format also responds to the policy of saving resources and reducing waste (Ryohin, n.d.)

The famous Japanese Zen ideologist, Daisetsu Teitaro Suzuki believed incomplete forms and things that are flawed are more expressive of the spirit because too perfect forms tend to make people turn their attention to the form itself and ignore the internal reality. Good design does not necessarily have to have a gorgeous appearance, but the subtle and simple details can bring more convenience and beauty to the user, and MUJI uses "wood, black, white and gray" as the main colors to develop the concept of minimalist design to the extreme. The simplicity of the products is a result of the simplification of the manufacturing process, the use of pure materials, and the traditional Japanese natural aesthetics. The simplicity of the appearance and the pure and light colors can give people a sense of comfort, health and closeness to nature. Paper, rattan,

wood, bamboo and other natural materials are not overly decorated. MUJI is faithful to the

original characteristics of the materials and reflects the aesthetic sensibility of nature.

2.4.5.2.1 The Products with "Micro-Consideration" and "Without Thought"

Naoto Fukasawa as the master designer of MUJI in Japan, designed products with the

concept of "Micro-Consideration", hoping that users would start the process of using the

products in an unconscious way "Without Thought" (Ashcraft, 2007, para. 9). The most famous

MUJI works would be the wall-mounted CD player, which resembles a small exhaust fan with a

simple, clean appearance, just like a kitchen fan, with a drawstring as its switch. After tugging on

the player's drawstring and clicking it, the CD begins to rotate slowly and silently until the music

plays just like airflow from a fan. "The operational instructions are intrinsic; a natural

relationship exists between object and user" (Ashcraft, 2007, para. 10). Music is a form of

communication that strikes at the heart, and high-tech products overlaid with traditional old

habits can lead to a sense of familiarity with new products. A small gap before the music starts

can trigger nostalgia for the user's past life.

Figure 2.13 Wall-mounted CD player (無印良品, n.d.)

Naoto Fukasawa's work "Umbrella with groove" is a good explanation of "Without Thought" usage, and a good demonstration of fragmented beauty applied to modern products. The shape of the regular umbrella handle is a perfect circular curve, but Naoto Fukasawa broke the perfect arc to dig a groove for hanging heavy objects. Naoto Fukasawa noticed this and designed the following kind of umbrella, so that people will naturally hang things on it. This comes from his unconscious design concept, in order to meet the use of the function and at the same time to integrate the fragmentation of beauty (Li, 2017).

Designed by Naoto Fukasawa

Figure 2.14 Umbrella with groove (Li, 2017)

Toda (2019) investigated the importance of creation and transmission of brand identity

through a case study of MUJI. In Tsutsumi's philosophy work (1996), he spoke against

consumerism in society. "He defined MUJI products as "anti-establishment merchandise," as the

brand opposed the established semiotic consumer culture" (p. 1). He emphasized that retailers

should offer only the least functional products and let consumers choose and prefer to use and

assemble products in a "you decide" approach. In the 1980s and 1990s, MUJI was favored by

consumers who were not into showy consumption. However, at the start of the 2000s, Matsui

investigated that continued severe economic conditions and lack of management internal

problems were the main reasons behind the slump in business. Hence, Matsui developed a

manual called the MUJI Gram to standardize all store operations, including detailed methods for

inventory management, stock replenishment, customer service, displaying products, MUJI Gram

was successful in helping MUJI's economy to recover quickly, and the uniqueness of MUJI's

internationalization was based on a standardized strategy rather than the adaptation strategy that

most scholars have emphasized.

2.4.5.2.2 MUJI Brand Dissemination

MUJI's target market is not just based on demographics, but on market size and respective

consumer behavior. According to Takeuchi, "We target customers who are trend-conscious and

are leading total consumer spending in each region" (Kruh et al., 2017, p. 19). For example,

Generation X is the main target in Japan because they have more initiative and ability to pay for

shopping and can lead a larger range of consumer spending. On the other hand, in China,

millennials are the main target because they are highly engaged online, represent the latest

trends, and contribute more to the dissemination of information.

According to Takeuchi, "Our advertising style is focused on the communication of a

concept" (Kruh et al., 2017, p.19). The advertising expressions are not promotional for a specific

MUJI product, but rather incorporate information and trends given by consumers, which leads to

brand promotion. MUJI also focuses heavily on two-way interactive communication between

consumers and the brand. They use the online asset 'MUJI.net community' to communicate

concepts and provide information. Takeuchi explains, "We provide interactive content, and

columns to publish our views on social issues, and we engage customers in product development

by asking for their ideas and opinions. This contributes to building loyalty among our customers"

(Kruh et al., 2017, p.37)

2.4.6 Japanese Aesthetics and Western Modern Minimalism

Venzo (2019) points out that *Wabi-sabi's* concept is a Zen Taoist philosophy concerned with

the value and beauty of impermanence and imperfection. Japanese Zen Aesthetics is the

expression of self-knowledge acquired through contact with simplicity, and natural phenomena,

as opposed to the industrialized novelty and perfection often idealized in Western civilization. Kwan (2012) uses the example of Sen-no-Rykyu's bamboo vase to describe the differentiation of aesthetics and values between East and West. This vase is so old that the bamboo is dried out and cracked, and water leaks out of the cracks. In Western culture, such a vase would be considered broken and non-functional and needs to be thrown away. In Japan, however, the cracks in this vase are called the "cutest" feature on the vase (Kwan, 2012).

2.4.6.1 Shibumi

Shibumi is related to the concept of *Wabi-sabi*, and they are both major Japanese aesthetic concepts. Although many *Wabi-sabi* objects are *shibui*, not all *shibui* objects are *Wabi-sabi.* *Wabi-sabi* objects sometimes exaggerate intentional imperfections to the point that they appear artificial, e.g., *kintsugi*. Although *shibui* objects can include these qualities, they are not necessarily imperfect or asymmetrical. They lack *Wabi-sabi's* obsession with time and imperfection and reduce the emotions of loneliness and sadness. Haimes (2020) suggests that *Shibui* may be related to the *sabi* part of *Wabi-sabi* terminology, as *sabi* can refer to "elegant simplicity." *Sabi* focuses more on extroverted aesthetic concepts (elegance, simplicity) than on introverted philosophies.

Originating in the Muromachi period (1336-1573) as *shibushi*, the term originally referred to a sour or astringent taste, such as the taste of an unripe persimmon. At the beginning of the Edo period (1615-1868), the term gradually began to refer to pleasing aesthetics (Richie, 2007). Haimes (2020) explains that *shibumi* usually translated as elegant, austere, refined, and simple, but also bitter and astringent.

Iki originated in the Edo period (1615-1868) when *shibumi* flourished and is a cornerstone of traditional Japanese culture in terms of aesthetic appeal and thought. *Iki* refers to the distinct

aesthetic ideal of an understated display of taste and/or wealth, emphasizing the dependence on monetary or other endeavors at a glance. The term is often used to suggest something refined, fashionable, or elegant. While some items may have both *iki* and *shibumi* qualities, the latter implies something subtler and more modest, not necessarily stylish or fashionable (Haimes, 2020).

2.4.6.1.1 The Relationship Between *Shibumi* and Modernism

Whether *shibumi* is a relevant aesthetic response to modern objects is probably a somewhat controversial point of view. Gordon, the former editor of *House Beautiful* magazine, was among the first to introduce the concept of *shibumi* to an English-speaking audience on a front page of *House Beautiful* magazine that read "Discover Shibui: The word for the highest level in beauty" (Iovine, 2000)

She emphasized that the marketplace aesthetic does not apply to modern (post-1960) objects: few things that are modern can be described as marketplace. The simple, raw natural beauty of *shibumi* has nothing to do with the Bauhaus idea of "less is more" or the "international style", for the following reasons: *Sihibusa* is humanistic and naturalistic, contrary to the mechanical theory of the modern movement, and does not contribute to the development of society faster (Penick, 2017). The Bauhaus concept of "less is more" became very popular in Japan from the 1930s. The Bauhaus (1919-1933) was a German art school founded by Walter Gropius and characterized by its unique approach to architecture and design, and its distinctive aesthetic (a subtle combination of art and craft) has had a lasting impact on modern art (My Modern Met, 2020).

However, as a rebuttal to that point, Haimes (2020) argued that Japanese *shibumi* aesthetics is actually compatible with modernist design. "The modernist design favors form after function,

while shibumi aesthetics promotes useful objects with subdued and even austere forms"(Haimes, 2020, p. 7). More specifically, the limitations evident in many modernist designs may in part help designers create minimalist objects, and in turn, the production of these objects may elicit that those who interact with Japanese culture resonate.

In 1940, Sails for Japan appointed Charlotte Perriand as an advisor on industrial design to the Ministry of Trade and Industry. Charlotte Perriand is a French architect and designer. Upon her arrival in Japan, she found a country where the design had "multiple tensions: between vernacular and mass production; excellent craft techniques and new relationships with industry; tradition and innovation" (Ban & Ferrara, 2020, p. 200). She traveled all over Japan and lived with local residents to better understand the spirit and sensitivity of Japanese culture. Perriand was particularly impressed by the Mingei Kan museum (the Japan Folk Crafts Museum) (Ban & Ferrara, 2020). The museum was founded in 1936 by Soestu Yanagi, who wanted it to display the "arts of the people", so he traveled the country buying everyday objects that were being thrown away (Japan Folk Crafts Museum: Komaba-Todaimae, n.d., para. 2). On display were "ceramic jars, sake pitchers, jewelry boxes, kettles, *otsu-e* (folk paintings), *mokujiki* (wooden sculptures) and many other essentials of daily life." (Japan Folk Crafts Museum: Komaba-Todaimae, n.d., para. 4). The beauty of these objects lays in their functionality, economy and honesty; their forms were a true expression of people's uses and needs (Ban & Ferrara, 2020). As Perriand said, the art "is done with simple means and the extreme simplification is the highest level of art" (Barsac, 2015, p34). The aim of Perriand's research was to preserve craftsmanship using a production entirely based on local materials and techniques. They are a true combination of traditional crafts, the use of local materials and modern western lifestyles. A Bamboo bed and a Cantilever chair specifically represented the synthesis of Perriand's work in Japan.

Figure 2.15 Cantilever chair (Deam, n.d.)   Figure 2.16 Chaise chair (Salvadore, 2020)

This is apparent in the work of furniture designer Sori Yanagi. He is both a Japanese modern designer and a sophisticated modernist, whose organic forms blend Western simplicity and practicality with elements of traditional Japanese craftsmanship (Haimes, 2020). Most of Yanagi's designs are very simple and beautiful. His products illustrate his idea that true beauty is not natural, but innate. When he creates a new product, he designs the first version repeatedly, trying to form a new shape from old and new ideas. In 1954, Yanagi created the iconic Butterfly Stool, a classic piece of furniture that uniquely combines Eastern forms with the plywood molding technique developed by Charles and Ray Eames. The gently curving silhouette of the twin seat shells is reminiscent of a butterfly's wings – eternally poised for flight (Haimes, 2020).

It is Haimes' (2020) view that Sori Yanagi's minimalist design work with a *shibumi* character illustrates that the Zen origins of *shibumi* may bring a more subtle, introspective elegance to Japanese modernist design than modern minimalism.

Figure 2.17 Butterfly Stool (*Vitra*, n.d.)

The famous German product designer Dieter Rams was influenced by Japanese minimalist aesthetics - he built a Japanese garden in his home and held a commemorative exhibition at the Kennitz Temple in Kyoto (McGuirk, 2020). Conversely, Ramsay had a strong influence on Japanese product designers, such as Naoto Fukasawa.

It has been shown that arts have proven to be interchangeable in many ways and are not absolutely isolated. While there are undeniably significant differences in artistic principles between Eastern and Western cultures. Western culture's less-is-more principle of appearance or Japanese culture's simple, uncomplicated, unadorned principle based on *shibumi* and *Wabi-sabi* aesthetics. Both share a similar philosophy of stripping away superfluous features and condensing them into the simplest form to enhance the ultimate purpose. The design concept of a pleasing aesthetic appearance is more easily accepted and spread by users.

2.4.6.1.2 *Shibumi* Strategy

According to Matthew E. May (2010), author of *Shibumi Strategy*, "Shibumi is the moments when efforts are minimum, and effectiveness is peak" (p. 1). May is an internationally recognized innovation author, design strategist, and columnist for the American Express Open

58

Forum Idea Hub. The *shibumi* strategy provides a new way to face work and life challenges to find balanced solutions.

May used fictional stories to reveal real philosophies, principles and practices. He advocated using *shibumi* principles to see how things are going and *shibumi* strategy to deal with problems often leads to life-changing breakthroughs. In May's (2010) view "Shibumi connot[es] effortless effectiveness, elegant simplicity and the height of personal excellence" (p. 2). He also detailed five key components on the path to *shibumi*: commitment, preparation, struggle, breakthrough and transformation.

The first measure is to become aware of the *shibumi* attitude and approach. May quotes Lao Tzu's Eastern philosophy that says "To attain knowledge, add things every day. To attain wisdom, subtract things every day" (May, 2013, para. 4). By removing all the unnecessary things and keeping only the important parts, they achieve the elegance that produces amazing results. This way of reducing in life, along with the Western aesthetic of "less is more", inspires people to focus on what is important.

May is guided by 11 key concepts in the pursuit of Zen of business in business, work and life, that he named the *Shibumi* Strategy. The last seven concepts May (2010) affectionately calls "The Shibumi Seven" (. The seven key aesthetic principles collectively comprise the "Zen of Design" (May, 2011). The principles are explained below:

Genchi genbutsu (go look, go see)

It is the key to solving problems. When opportunities arise, do people have the ability to look at the problem from multiple perspectives to improve the scope of seeing the "truth".

Hoshin kanri (goal alignment)

The purpose is to create a framework that aligns strategy and goals. After taking on the challenge, people should be aware of their direction and goals and pay for them.

Kaizen (continuous improvement)

May be thought of as an endless repetition of three steps: first, create a standard. Second, follow it. Third, find a better way. What drives kaizen is a circular process of constantly discovering problems, creatively solving problems and making progress.

Hansei (reflection)

At the end of each goal or challenge, regardless of the outcome, there is a need to reflect on what happened before in order to better understand the process that led to the final result.

Shizen (naturalness)

It is a principle that seeks to strike a balance between the presence of the natural and the distinctive at the same time. It is seen as without pretense, without artifice, without compulsion, but to be revealed as deliberate, not accidental. For example, an elegant potted plant needs to be carefully designed and pruned but must not present a false sense of over-perfection. It should contain full creative intent while satisfying a sense of freedom and vibrancy of self.

Kanso (simplicity)

It is a principle that dictates beauty and practicality without exaggeration, without over-decoration, without grandeur, without fantasy. What expresses simplicity is sincere and reserved in nature. It fits perfectly with the modern trend towards minimalism in architecture and interior design. Less is more! Learn to eliminate the unimportant and focus on what is important in the space for a clear, simple design.

Koko (austerity)

It is a principle that emphasizes restraint, exclusion, and omission. The goal is to present something that is simple, but with a sense of maturity. Visual elements are reduced to their basic bare bones. without sensuous aspects. Koko is very similar to simplicity at first sight. Applied to graphic design you could say that it adds an iconic layer to Kanso' s pure simplicity. Koko has that certain wisdom which strong brands carry with them.

Yugen (subtlety)

It is a principle that captures the Zen view that because the human spirit indefinable, the power of suggestion is exalted as the mark of a truly authentic creation. Yugen avoids the obvious and relates to the subtleties of nature. A picture is worth a thousand words, while a good metaphor is worth a thousand pictures. Metaphor, as a literary mechanism, is a simple yet very powerful way to convey ideas in a memorable way, which also allows for interpretation by the user.

Fukinsei (asymmetry)

It is a goal to convey the symmetrical harmony and beauty of nature through clearly asymmetrical and incomplete renderings; the effect is that the viewer supplies the missing symmetry and thus participates in the act of creation, generates excitement and inspires curiosity.

Seijaku (quietude)

It is a principle that emphasizes the fundamental Zen theme of emptiness, which implies an inexhaustible spirit. It is in states of active calm, tranquility, solitude, and quietude that we find the very essence of creative energy.

Datsuzoku (break from routine)

It is a principle that signifies a break from daily routine or habit, a freedom from the commonplace. It involves a feeling of transcending the ordinary and conventional. Surprise is the immediate effect of an expression involving Datsuzoku. This is a non-stoppable revolution with surprises. Thereby the revolution delivers one of the highest values: Unworldliness freedom (pp. 4-6).

According to May (2010), several Zen concepts are already practiced at the core of most companies, e.g. *shibumi*: *Kaizen* (continuous improvement) and *hansei* (reflection). People often think about problems only when the situation deteriorates or when negative impacts do occur, and they want to find out why. The Japanese concept of reflection is to always focus on the gap between what you think will happen and what actually happens, and to always see it as a moment of learning.

May believes that people like stories more than anything else. He believes that stories are the most powerful way to capture the mind, present a point and communicate a message. Improving the user experience through a simple design concept with a metaphorical way of the visceral level and behavioral level. This thesis describes a concept that goes beyond the design field, wants to create an inspiring design that explores a particular philosophy and develops an aesthetic design approach with philosophical perceptions. It wants to help people during environmental and consumer crises. Designers should design responsible products to achieve the goal that lead people to be aware of the importance of environmental protection and green consumption. By analyzing and explaining the principles and representative products based on traditional Japanese philosophical ideas, Japanese aesthetics (*Wabi-sabi, Shibumi*) and modern

western aesthetics (Minimalism), the visual stimulation and use experience of the packaging could trigger the user to open the mode of thinking and reflecting.
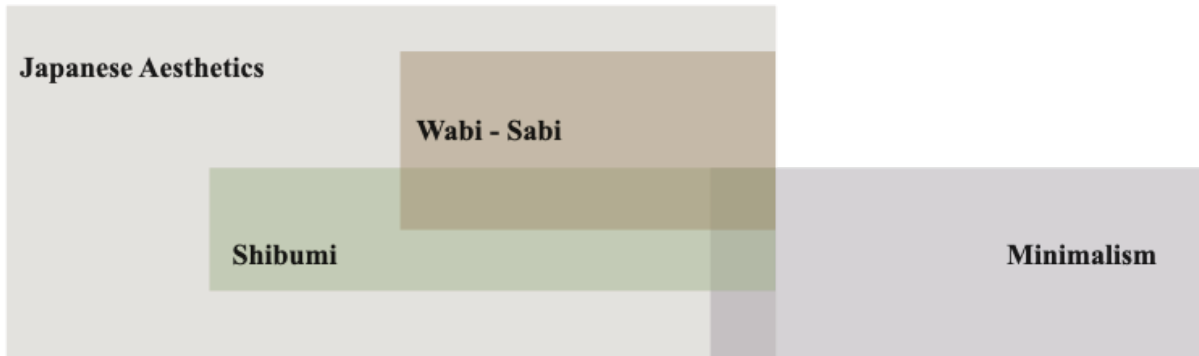

Figure 2.18 Relationship between aesthetics of *Wabi-sabi*, *Shibumi* and Minimalism

| Similarity of Wabi-sabi & Shibumi |
| Similarity of Shibumi & Minimalism |
| Similarity of Wabi-sabi & Shibumi & Minimalism |

Similar and different characteristics between Wabi-sabi, Shibumi and Minimalism

	WABI-SABI	SHIBUMI	MINIMALISM
	Imperfect	Balance simplicity with complexity	Geometric abstraction
	Impermanent	Balance elegant with rough	Cubic
	Incomplete	Balance spontaneous with restrained	Purged metaphor
	Asymmetry	Subtle details	Objective
	Roughness	Enriched	Repetition
	Simplicity	Not innocent	Neutral
	Economy	Add grey from pastels to dark	Industrial
	Rustic/Austerity	Occasionally added a highlight	Stripes
	Understated/Subdued	Serenity/Tranquillity	Monochromatic
	Modesty	Understated/Subdued	Hard-edge
	Intimacy	Simplicity	Blunt
	Naturalness	Spare elegance	Tough
	Subtle grace	Implicitly	Functional
	Miscellaneous	Modesty	Lines and planes
	Irregular	Naturalness	Expensive
	Earthy	Everydayness	White
	Serenity/Tranquillity	Imperfection	Black

	Loneliness	Perfection	Light grey
	Undecorated	Symmetry	Occasionally added a highlight
	Implicitly	Asymmetry	Sense of order
	Idiosyncratic	Silence	Simplicity
	Present-oriented	Elegant/Aristocratic simplicity	Subtle details
	Organic	Effortless effectiveness	White space/Embrace Negative Space
	Soften	Understated excellence	Understated/ Subdued
	Vague	Beautiful imperfection	
	Degradation/Withered		
	Attrition		
	Dimmed		
	Non-functional		
	Seasonal		

Table 2.1 Similar and different characteristics between *Wabi-sabi, Shibumi* and Minimalism
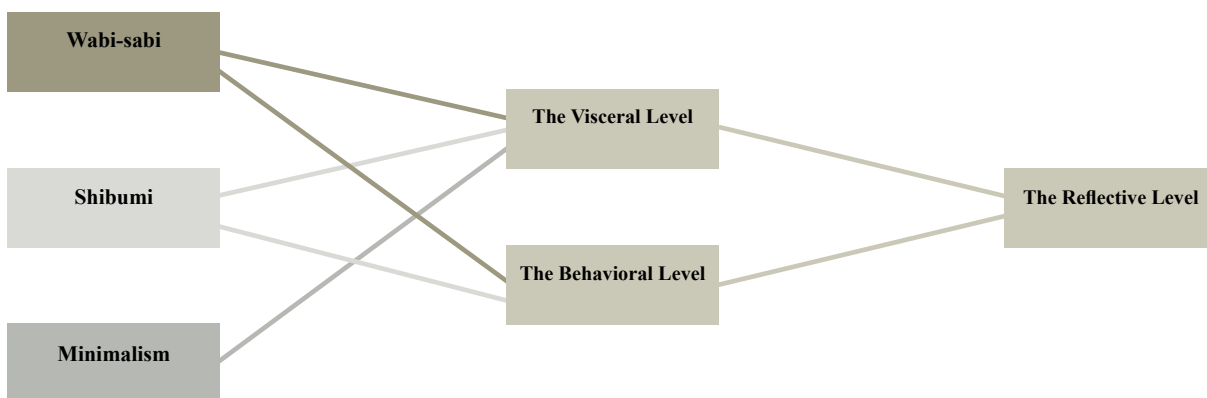
Figure 2.19 Relationship between aesthetics and the three levels of design

Chapter3 Design Guideline

This design guideline helps designers incorporate Japanese philosophical concepts and aesthetic principles into the design attributes of packaging appearance. The design of the packaging uses unconscious design and interesting design to make the product packaging a sustainable design with a reflective level.
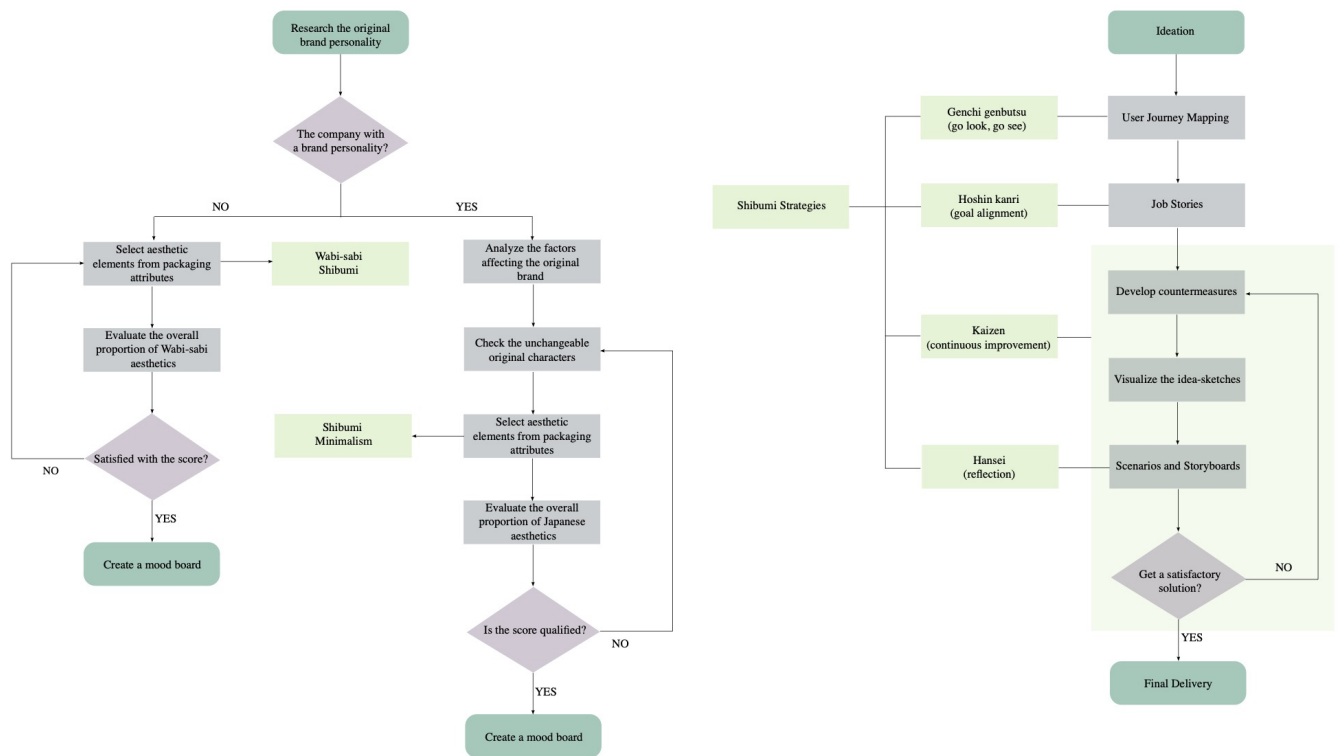
Figure 3.1 The flow chat of the overall process

3.1 Japanese Aesthetic Principles in The Visceral Level

This chapter will show the first stage, based on the application of Japanese aesthetics on the visceral level to sustainable packaging. Norman's theory (2004) claims that design factors related to product appearance belong to the visceral level. This phase gives two different design processes for different brand backgrounds.

Figure 3.2 The flow chat of the visceral level

3.1.1 The Company with Weak Brand Personality

3.1.1.1 Research the Original Brand Personality

Research the original brand personality ....

What:
Looking for the publicity characteristics of the brand.

How:
Investigate the brand personality of the company.
Fill out the table of tangible elements and intangible traits.
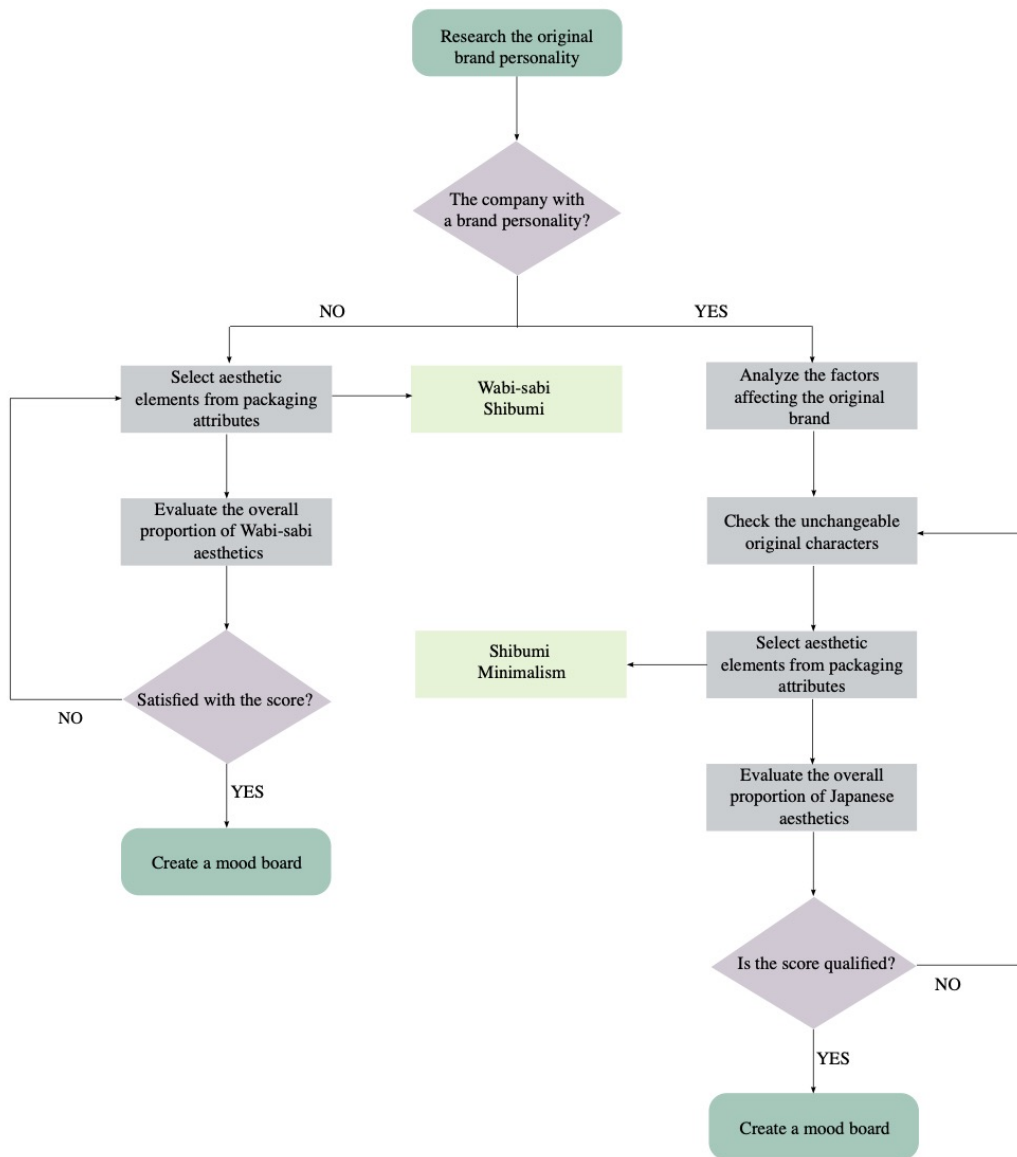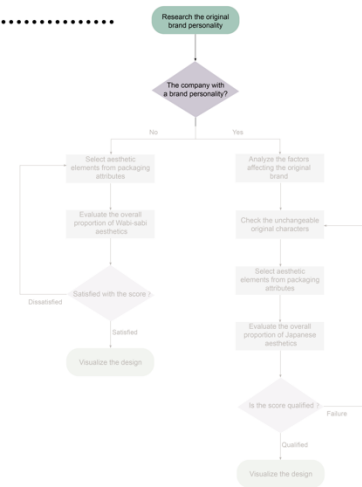
Why:
Judging whether the company has brand personality or not.

The relationship between product packaging and branding is inextricably serviceable. The purpose of this stage is to classify companies with a brand culture from companies without a brand culture. It is the first step to help companies without a brand personality to develop an organizational culture with a sense of Japanese philosophy. It is also to pave the way for the integration of a strong brand identity with a sense of Japanese philosophy.

Before starting the design process, it is necessary to define the company's brand personality and investigate the brand's promotional characteristics. The symbolic meaning brands acquire is often called brand personality, which is the expression of brand image or identity by human traits (Infinite, 2012). Personality helps brands to connect with consumers, which means giving a human personality trait/characteristic to a brand to differentiate it.

As brands continue to evolve, the product packaging is one of the tangible channels for rebranding; packaging with intangible values ensures that the brand keeps up with the changing needs of the market. Change is necessary to stay in touch with the times in which the brand is operating and to ensure its future success. Brand audits and market research will help assess the characteristics of the changes required ("Brand Revitalization", 2021).

Brand personality can be described an intangible item partly based on a tangible substrate, made of all the possible elements of its expression (Deserti, 2014). Designers should maintain the consistency of brand communication through tangible traits and intangible traits. These tangible elements express the visual brand design directly through symbol, name, or sign that identifies and distinguishes one product from another product. Intangible traits are association, or value, or linkages with brand-emotion, image and feeling, which is the sum of a series of perceptions (Thomas, 2020). Based on the tangible and intangible traits chart, designers can summarize the branding elements.

Traits of The Original Brand		
	Traits	Remarks
Tangible	Symbol	
	Name	
	Sign	
Intangible	Associations	
	Values	
	Emotions	
	Imagery	
	Feelings	

Table 3.1 Trait of the original brand (Jerry, 2020)

3.1.1.2 Select Aesthetic Principle from Packaging Attributes (Weak Brand Personality)

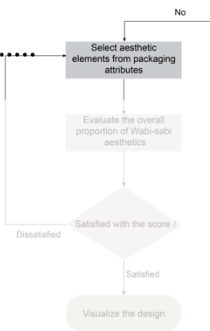**Select aesthetic principle and elements**

What:
Select the corresponding aesthetic elements according to the packaging attributes.

How:
Adopt the the following aesthetic characteristics checklist.

Why:
Designer can select the different characteristics to combine more schemes effectively.

The brand personality is identified by dividing the service recipients into two categories, judging the necessary aesthetic styles, and arranging them in order of priority close to the Japanese philosophy.

In brands that do not have a unique culture, two Japanese aesthetic principles, *Wabi-sabi* and *shibumi*, may be used to create a Japanese philosophical brand concept for that brand. *Wabi-sabi* and *shibumi* are the primary expressions of Japanese aesthetics, and *shibumi* should not be confused with *wabi* or *sabi*. Although many *wabi* or *sabi* objects are *shibui*, not all *shibui* objects are *wabi* or *sabi*. *Wabi* or *sabi* objects can be more severe, sometimes exaggerating intentional imperfections to the point that they look artificial. Although *shibui* objects can contain these qualities, they are not necessarily imperfect or asymmetrical. Thus, visuals in which *Wabi-sabi* can be claimed accentuate Japanese aesthetics more absolutely than *shibui*.

The basic elements of package design are name, form, color, typography, material, product information and image (Vyas, 2015). Since typography, product information and image are difficult to represent with Japanese aesthetic elements, elements of packaging are reduced to text, form, color, material and texture.

The similarities and differences between *Wabi-sabi* and *shibumi* in Japanese aesthetics are summarized by checklist. Designers can select the design elements they need to incorporate into their products based on the product attributes (color, form, text and texture).

Wabi-sabi & Shibumi Aesthetic Elements with Packaging Attributes			
	WABI-SABI	**WABI-SABI & SHIBUMI**	**SHIBUMI**
COLOR	Rustic/Austerity	Simplicity	Balance simplicity with complexity
	Intimacy	Understated/Subdued	Balance spontaneous with restrained
	Subtle grace	Modesty	Enriched
	Miscellaneous	Naturalness	Not innocent
	Earthy	Serenity/tranquillity	Add grey from pastels to dark
	Loneliness	Implicitly	Everydayness
	Idiosyncratic		Silence
	Soften		
	Vague		
	Withered		
	Dimmed		
	Seasonal		
FORM	Incomplete	Imperfect	Balance simplicity with complexity
	Rustic/Austerity	Asymmetry	Balance elegant with rough
	Irregular	Simplicity	Balance spontaneous with restrained
	Loneliness	Understated/Subdued	Spare elegance
	Undecorated	Serenity/tranquillity	Everydayness
	Idiosyncratic	Implicitly	Perfection
	Organic		Symmetry
	Soften		
	Non-functional		

TEXT	Incomplete	Imperfect	Spare elegance
	Intimacy	Asymmetry	Perfection
	Subtle grace	Modesty	Symmetry
	Irregular		
	Idiosyncratic		
TEXTURE	Roughness	Asymmetry	Balance elegant with rough
	Rustic/Austerity	Simplicity	Enriched
	Subtle grace		Spare elegance
	Irregular		
	Idiosyncratic		
	Soften		
	Vague		
	Attrition		

Table 3.2 *Wabi-sabi* & *Shibumi* aesthetic elements with package attributes

3.1.1.3 Evaluate the Overall Proportion of *Wabi-sabi* Aesthetics

Evaluate the proportion of aesthetics ....

What:
Calculate the proportion of design style according to the selected characteristics.

How:
Calculate the proportion by equation.

Why:
Avoid design style being too subjective.

No

Select aesthetic elements from packaging attributes

Evaluate the overall proportion of Wabi-sabi aesthetics

Satisfied with the score ?
Dissatisfied
Satisfied

Visualize the design
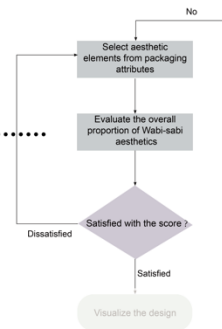
The rules of arithmetic are provided in order to obtain quantitative data in order to help designers evaluate and measure the percentage of Japanese aesthetics before visualizing the design and prevent the final style from being too subjective.

Based on Vyas's survey (2015), statistics identify the percentage of responses by table of user's response to elements of package design. Color combination of packaging draws attention (46%). Font on package draws attention (47%). The shape of the package was attributed to drawing attention (47%). The material of the package was attributed to drawing attention (83%) .

Texture is part of material, and it is assumed that the sum of material and texture accounted for 83% of the psychological responses affecting consumers, with material accounting for 41.5% and texture for 41.5%. All five design attributes probably have a similar influence on consumer psychology. Therefore, the proportion of packaging attributes will not lead to bias in style differentiation.

Elements of packaging

Packaging element	Influence on consumer	Response (%)
Name of the brand	Draw attention	43
	Ease to remember	43
	Make it unique	47
Color combination	Draw attention	46
	Ease to remember	47
	Evoke mood	48
	Differentiate the products	49
Font	Draw attention	47
	Readable from distance	43
Picture on packaging	Draw attention	46
	Trigger purchase	46
	Ease to remember	5
Picture on packaging	Draw attention	46
	Trigger purchase	46
	Ease to remember the product	50
The shape of package	Draws attention	47
	Ease of finding in the store	47
	Comfort to carry	48
Packaging size	Suit the need for amount required	48
	Ease to carry	50
	Encourage to buy product	47
Product information and description	Clarity	45
	Draws trust	49
	Ease to follow	46
Color of the brand name	Evoke mood and sensory feelings amongst the consumers.	84
Graphics on the package	Sought attention	91
Visual information	Attracts to the product	85
Logo	Position is crucial	83
Package material	Gives a feel of sign of quality	83
	Evoke feelings	82

Figure 3.3 Consumers response to packaging elements (Vyas, 2015)

Prerequisite:

1. Based on the explanation in 3.1.3, " *wabi-sabi* has a unique, distinctive Japanese aesthetic principle broader than *shibumi*: *wabi-sabi>shibumi*.

2. All the same elements can be used freely, and product attribute priority is not considered in the calculation.

Hypothesis:

Wabi-sabi=W=2,

Shibumi=S=1,

The quantity of *Wabi-sabi* elements=x,

The quantity of *Shibumi* elements=y,

It can be derived that:

The equation of *Wabi-sabi* preference is:

$(Wx+Sy)/(x+y)>1.5$

The equation of *Shibumi* preference is:

$(Wx+Sy)/(x+y)<1.5$

3.1.2 The Company with Strong Brand Personality

3.1.2.1 Research the Original Brand Personality

Research the original brand personality ···

What:
Looking for the publicity characteristics of the brand.

How:
Investigate the brand personality of the company.
Fill out the table of tangible elements and intangible traits.

Why:
Judging whether the company has brand personality or not.
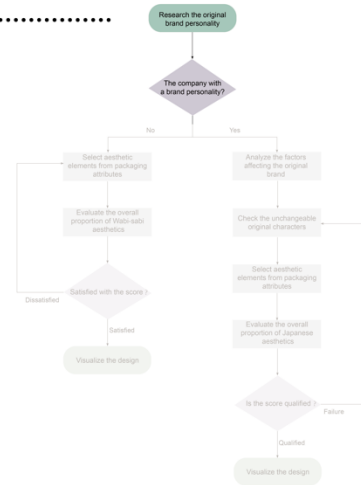
Same as above information

Traits of The Original Brand		
	Traits	Remarks
Tangible	Symbol	
	Name	
	Sign	
Intangible	Associations	
	Values	
	Emotions	
	Imagery	
	Feelings	

Table 3.1 Traits of the original brand (Jerry, 2020)

3.1.2.2 Analyze the Original Brand Personality

Analyze the original brand personality ....
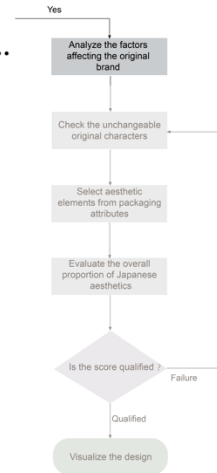
What:
Conduct a brand audit to analyze the brand personality.

How:
Adopt the SWOT chart to collect information.

Why:
Help designer find opportunities to rebuild the brand culture with Japanese philosophy.

A brand audit and SWOT analysis are used to understand and identify potential threats that the original brand may face. Rebranding is a complex process and designers should conduct a brand audit to assess brand weaknesses and identify new areas for innovation and growth. It is uncovering these potential unknowns and thus providing maximum value.
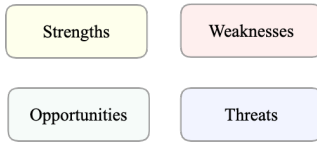
SWOT assumes that strengths and weaknesses are frequently internal, while opportunities and threats are more commonly external. Strengths: characteristics of the business or project that give it an advantage over others. Weaknesses: characteristics that place the business or project at a disadvantage relative to others. Opportunities: elements in the environment that the business or project could exploit to its advantage. Threats: elements in the environment that could cause trouble for the business or project ("SWOT analysis", 2003, para. 3).

Strengths Weaknesses

Opportunities Threats

SWOT Analysis

	Helpful to achieving the objective	Harmful to achieving the objective
Internal Origin (attribute of the organization)	Does the brand have a unique backstory or mission?	Does the brand lack strategies for moving forward?
	In what ways is the brand aligned with current mission and business direction?	What parts of the brand are poorly communicated?
	Which elements of the brand resonate with target audience?	Are any brand messages failing to resonate with the audience?
	What parts of the brand are communicated well?	What aspects of the brand are perceived poorly?
	In what respects is the brand well-perceived?	
External Origin (attribute of the organization)	Can the brand authentically align itself with Japanese philosophy?	What are the competitors offering that the brand can't compete with?
	Does Japanese philosophy benefit the business or brand?	Are there any cultural shifts that may harm the business or brand?
	Is there an existing unsung aspect of the brand that designer could highlight?	Are downward economic trends likely to impact the business?
		Are there any events that may cast any elements of the brand in a negative light?

Strengths Weaknesses

Opportunities Threats

SWOT Analysis

	Helpful to achieving the objective
Internal Origin (attribute of the organization)	Does the brand have a unique backstory or mission?
	In what ways is the brand aligned with current mission and business direction?
	Which elements of the brand resonate with target audience?
	What parts of the brand are communicated well?
	In what respects is the brand well-perceived?
External Origin (attribute of the organization)	Can the brand authentically align itself with Japanese philosophy?
	Does Japanese philosophy benefit the business or brand?
	Is there an existing unsung aspect of the brand that designer could highlight?

Strengths	Weaknesses

Opportunities	Threats

SWOT Analysis	
	Harmful **to achieving the objective**
Internal Origin **(attribute of the organization)**	Does the brand lack strategies for moving forward?
	What parts of the brand are poorly communicated?
	Are any brand messages failing to resonate with the audience?
	What aspects of the brand are perceived poorly?
External Origin **(attribute of the organization)**	What are the competitors offering that the brand can't compete with?
	Are there any cultural shifts that may harm the business or brand?
	Are downward economic trends likely to impact the business?
	Are there any events that may cast any elements of the brand in a negative light?

Table 3.3 SWOT analysis (VanAuken, 2021)

The goal of a SWOT analysis is to make better choices by gaining a deeper understanding of the original brand. This SWOT analysis should begin with a careful review of the brand, objectively identifying the strengths and weaknesses of the original brand that will allow the designer to capitalize on those strengths and improve on the weaknesses. Adding Japanese philosophy and culture is a new opportunity for the brand to reduce the level of competitive threat and avoid homogenization.

Questions that can help designer conduct a SWOT analysis helps achieve a complete rebrand and a pivot (Lundin, 2021).

Strengths:

Does the brand have a unique backstory or mission?

In what ways is the brand aligned with current mission and business direction?

Which elements of the brand resonate with target audience?

What parts of the brand are communicated well?

In what respects are the brand well-perceived?

Weaknesses:

Does the brand lack strategies for moving forward?

What parts of the brand are poorly communicated?

Are any brand messages failing to resonate with the audience?

What aspects of the brand are perceived poorly?

Opportunities:

Can the brand authentically align itself with Japanese philosophy?

Does Japanese philosophy benefit the business or brand?

Is there an existing unsung aspect of the brand that designer could highlight?

Threats:

What are the competitors offering that the brand can't compete with?

Are there any cultural shifts that may harm the business or brand?

Are downward economic trends likely to impact the business?

Are there any events that may cast any elements of the brand in a negative light?

3.1.2.3 Check the Unchangeable Original Characteristics

Check the unchangeable original characters ....

What:
Seek out the representative elements of the brand.

How:
Adopt the following chart to summarize the all original characters to select unchangeable original characters.

Why:
Reduce unnecessary element in order to better integrate Japanese aesthetics.
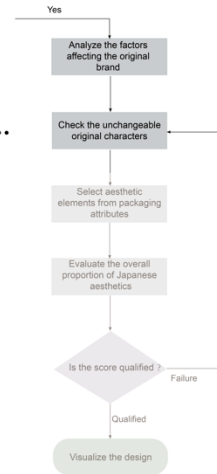
Classify the original brand elements according to packaging attributes (color, shape, text, texture, material), identify the unchangeable original features, and improve or enhance them in future designs. Under the premise of reconstructing the brand personality, the unchangeable original characteristics are retained in order to make the original brand and Japanese philosophy better together and consumers accept the reflection more quickly.

Original Characteristics of The Brand	
	Characteristics
Color	
Form	
Text	
Texture	

Table 3.4 Original characteristics of the brand

3.1.2.4 Select Aesthetic Principle from Package Attributes (Strong Brand Personality)

Select aesthetic principles and elements

What:
Select the corresponding aesthetic characteristics according to the packaging attributes.

How:
Adopt the the following aesthetic characteristics checklist.

Why:
Designer can select the different characteristics to combine more schemes effectively.
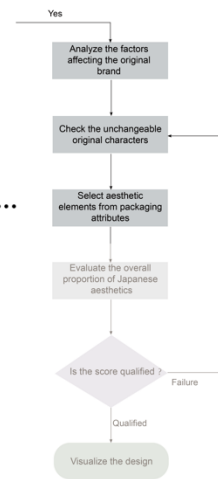
In brands with original culture, it is necessary to adopt Japanese *shibumi* aesthetics in addition to the Western minimalist aesthetics as a balance and transition between the Japanese philosophical culture and the original characteristics, in order to maintain the match between the Japanese aesthetics and the original brand culture.

The designer can select the desired design elements to be incorporated into the product based on the packaging attributes (color, shape, text and texture) among the different aesthetic concepts.

Shibumi & Minimalism Aesthetic Elements with Packaging Attributes

	SHIBUMI	SHIBUMI & MINIMALISM	MINIMALISM
COLOR	Balance simplicity with complexity	Subtle details	Purged metaphor
	Balance spontaneous with restrained	Occasionally added a highlight	Repetition
	Enriched	Understated/ Subdued	Neutral
	Not innocent	Simplicity	Industrial
	Add grey from pastels to dark		Monochromatic
	Serenity/tranquillity		Expensive
	Implicitly		White
	Modesty		Black
	Naturalness		Light gray
	Silence		White space/Embrace negative space
FORM	Balance simplicity with complexity	Subtle details	Geometric abstraction
	Balance elegant with rough	Understated/ Subdued	Cubic
	Balance spontaneous with restrained	Simplicity	Purged metaphor
	Serenity/tranquillity		Objective
	Spare elegance		Repetition
	Implicitly		Industrial
	Perfection		Stripes
	Imperfection		Hard-edge
	Symmetry		Blunt
	Asymmetry		Functional
			Lines and planes
			Sense of order
TEXT	Balance simplicity with complexity	Simplicity	Neutral
	Modesty		Cubic
	Perfection		Sense of order
	Imperfection		White space/Embrace negative space
	Symmetry		
	Asymmetry		

TEXTURE	Balance elegant with rough	Subtle details	Repetition
	Balance spontaneous with restrained	Understated/ Subdued	Industrial
	Enriched		Stripes
	Spare elegance		
	Symmetry		
	Asymmetry		

Table 3.5 *Shibumi* & Minimalism aesthetic elements with package attributes

3.1.2.5 Evaluate the Overall Proportion of Japanese Aesthetics (with Brand Personality)
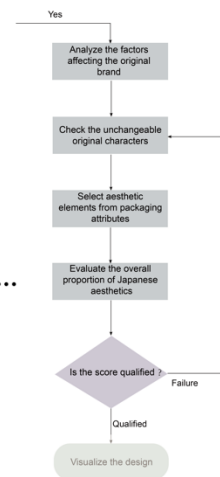
Evaluate the proportion of aesthetics

What:
Calculate the proportion of design style according to the selected characteristics.

How:
Calculate the proportion by equation.

Why:
Avoid design style being too subjective.

Prerequisite：

1. Based on the explanation in **2.4.6.1.1 the relationship between *Shibumi* and modernism,** *shibumi>minimalism*.

2. All the same elements can be used freely, and product attribute priority is not considered in the calculation.

Hypothesis:

Shibumi=S=1,

Minimalism=M=0

The quantity of *Shibumi* attribute=y,

The quantity of Minimalism attribute=z,

It can be derived that:

The equation of Japanese aesthetic preference is:

$(Sy+Mz)/(y+z) >= 1.5$

The equation of Minimalism preference is:

$(Sy+Mz)/(y+z) < 1.5$

3.3 *Shibumi* Strategies in The Behavior Level

When designers serve enterprises, the visceral level achieves the purpose of attracting consumers, increasing the preference, and enhancing brand loyalty. The behavior level is better for expanding the target customers, in which use of human-oriented design process are based on *Shibumi* strategies to enhance the functionality of the package to achieving the purpose of sustainability. Sustainable packaging design strategies can prolong consumers' emotional attachment. Brands continue to explore ways to incorporate sustainable packaging into the product lifecycle.
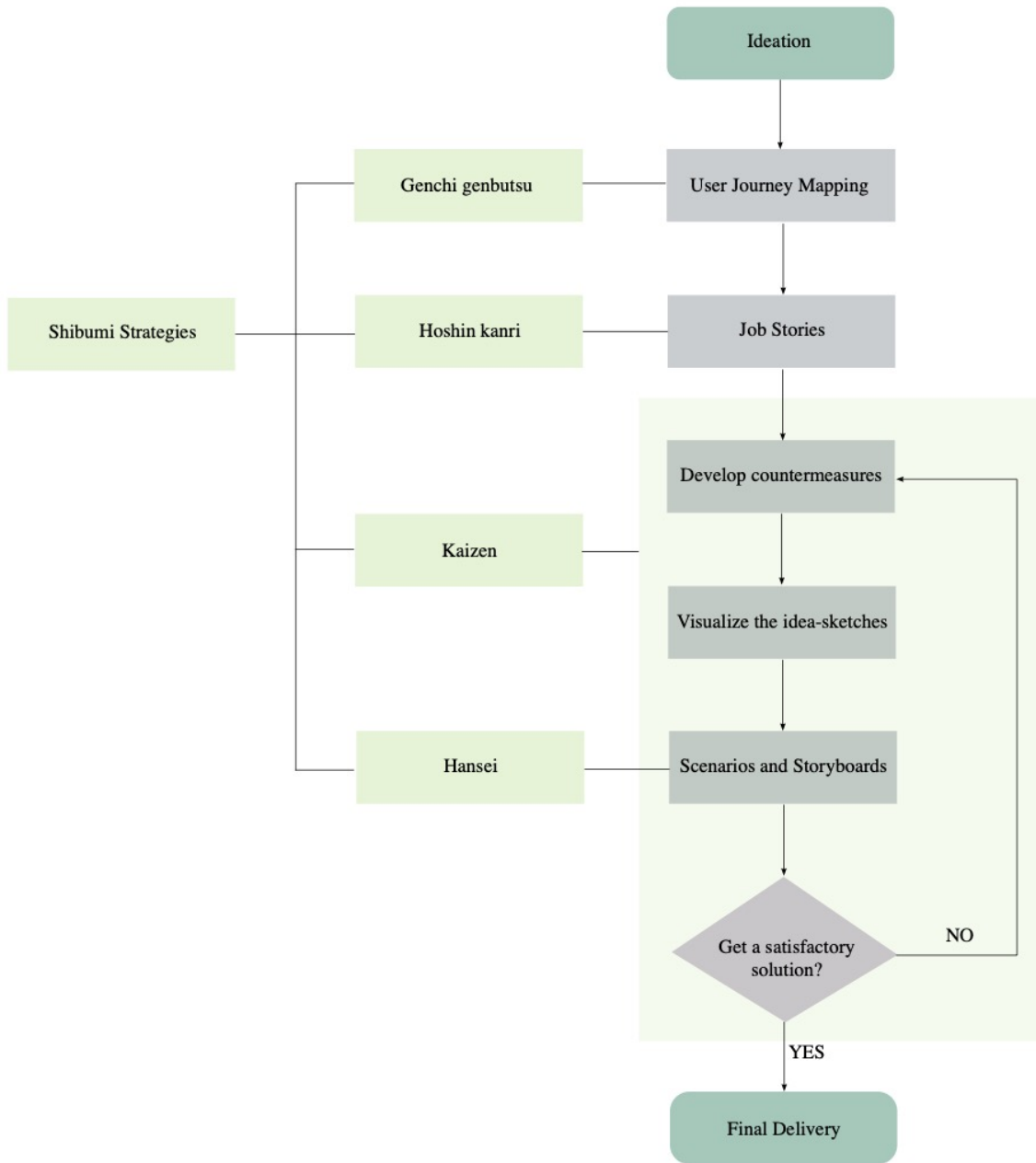
Figure 3.4 The flow chat of the behavior level

Japanese philosophy usually exists mainly at the visual level to trigger a sense of reflection, rather than at the functional level. As consumers make stronger trade-offs in the process of consumption, design stopping at this level is not convincing enough.

The behavioral level is essentially the emotion felt by the user as a result of accomplishing or failing to accomplish a goal. Emotions are likely to be positive when the product enables the user to accomplish the goal with minimal difficulty and little conscious effort. Consumers' moral satisfaction would be enhanced to a certain extent in a sustainable strategy at the behavioral level (Steenis et al., 2018).

3.3.1 Ideation

Ideation is the first step to improve user experience. The conception stage is a period when designers brainstorm creative ideas about project objectives. At this stage, the key lies not only in generating ideas, but also in confirming whether the most important design assumptions are valid.

3.3.1.1 Genchi genbutsu (go look, go see) -User Journey Mapping
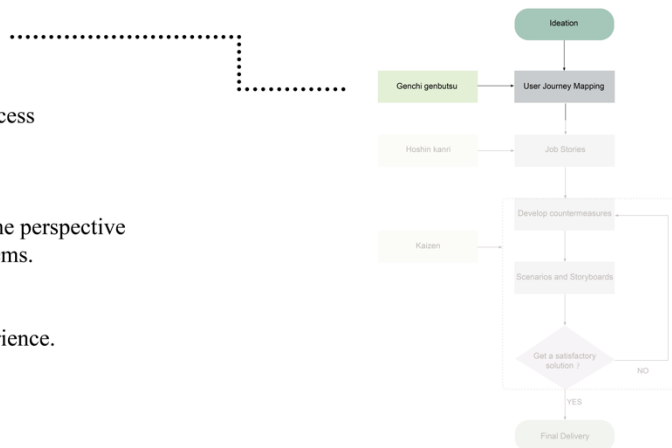

Genchi genbutsu refers to the way of looking at a problem with a multi-perspective mindset capability. User Journey Mapping survey tool helps to visualize the process experienced by

users, which summarizes information from the perspective of user action, user goals, emotion and problems.

Designers need to use User Journey Mapping to visualize the process experienced by users. According to user feedback, positive and negative emotions can be identified in the whole journey. User Journey Mapping accurately analyzes the pain points during the use of products. Usually, it is presented in the form of a series of steps in which the user interacts with the product. It expands this empathy on a wider scale, so designers can truly understand their experience and play an important role in improving the user experience (Babich, 2018).

User Journey Mapping					
User actions	Action 1	Action 2	Action 3	Action 4	Action 5
	Experience 1	Experience 2	Experience 3	Experience 4	Experience 5
User goals	Goal 1	Goal 2	Goal 3	Goal 4	Goal 5
Emotion	Expected	Excited	Anxious	Curious	Worried
Problems	Problem 1	Problem 2	Problem 3	Problem 4	Problem 5

Table 3.6 User journey mapping

3.3.1.2 Hoshin kanri (goal alignment)- Job Stories

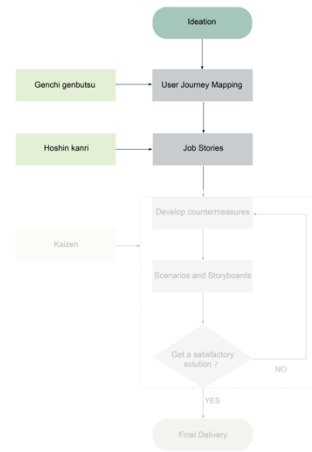**Hoshin kanri (goal alignment)**

What:
Use job stories to create strategic goal framework.

How:
Describe the user's situation, motivation and purpose.

Why:
Capture the motivations to help define features.

Hoshin kanri refers to a clearly defined strategic goal framework. Job Stories is a great way to use the to-be-done work philosophy to help define features (Klement, 2013). After the designer identifies the user's role and understands the pain points in the use process, a simple template -job story is used to describe the user's situation, motivation and purpose. Before starting to create storyboards, it's important to know exactly why.

Design a framework for each design problem, focusing on triggering events or situations, motivations and goals, and expected results:

When _____, I want to _____, so I can _____.

3.3.1.3 Kaizen (continuous improvement) -Develop countermeasures
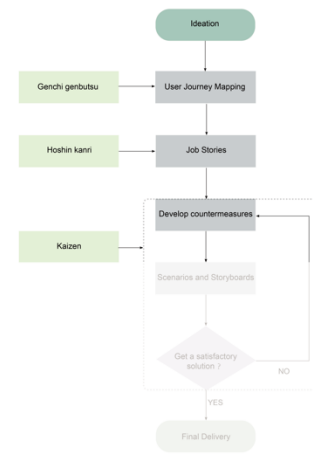
Kaizen (continuous improvement)

What:
Use develop countermeasures to increase the effectiveness and enjoyment of the functionality.

How:
Selecte the verb to improve functionality from an action-oriented approach.

Why:
Translated into sustainable design principles.

Kaizen refers to continuous and sustained improvement processes that eliminate waste and increase efficiency. Develop countermeasures to increase the effectiveness and enjoyment of the functionality of the package for sustainable purposes. An action-oriented approach is a good starting point. For example, if the designer wants the user to perform an action, who should design the verb that allow the user to infer the action, e.g., take, pull, lift, fold, roll, still, etc. should be determined. Translated into sustainable design principles added to the innovation process, these familiar or easily understood product semantics are more likely to resonate with the users (Smith, 2009). After selecting the improvable action and alternative purpose, designers should demonstrate the functionality of the package through drawing or any visual communication.

Paper Packaging Category

	Category	Improve functionality	Reusable (alternative purpose)
	Paperboard Cartons	Take	Container/Storage
		Lift	
		Dismantle	Daily necessities
	Chipboard	Stack	
		Collect	Art Decoration
		Throw	
	Rigid Boxes	Pull	Fun Activities
		Tear	
		Turn	
	Paper Bags	Lift	Container/Storage
		Stack	Daily necessities
		Roll	Art Decoration
		Fold	Compost
		Collect	Cover
		Throw	Fun Activities
	Corrugated Boxes	Move	Container/Storage
		Take	Daily necessities
		Dismantle	
		Stack	Toy for pets
		Throw	Art Decoration
		Pull	Fun Activities
		Tear	
		Turn	Furniture

		Take	Container/Storage
Wood Container		Lift	
		Stack	
		Pull	Daily necessities
		Push	
		Turn	Art Decoration
		Snap	
		Cover	
		Dismantle	Furniture
		Lock	

Table 3.7 Develop countermeasures

3.3.1.4 Kaizen (continuous improvement) Scenarios and Storyboards (Hansei)

Hansei is the last step of the *Kaizen* process. As a process of improvement continues into the storyboard, design solutions will iterate between the two design steps in order to find the most appropriate one for the user and the environment. Designers can write scenarios of interactions, presenting a story of how products integrate into users and improving user experience in a visual

way. Storyboards help people connect stories. When designers draw storyboards, they usually inject emotion into their characters. This helps designers to test assumptions about potential scenarios based on understanding existing interaction scenarios (Babich, 2017).
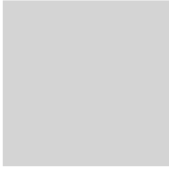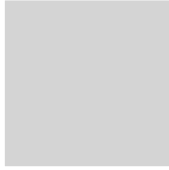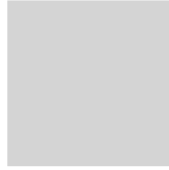
Storyboard					
User actions	Action 1	Action 2	Action 3	Action 4	Action 5
	Experience 1	Experience 2	Experience 3	Experience 4	Experience 5
User goals	Goal 1	Goal 2	Goal 3	Goal 4	Goal 5
Storyboard					
Emotion	Expected	Excited	Anxious	Curious	Worried
Problems	Problem 1	Problem 2	Problem 3	Problem 4	Problem 5

Table 3.8 Storyboards

3.4 Pleasure model in the reflection level

The reflection level refers to the user's reaction to the product before, during and after use. The ultimate goal of design is to trigger a positive and pleasant emotional response from the user. Emotional pleasure is the intuitive expression of the product with a reflective level.

93

The pleasure framework was identified by Lionel Tiger in 1992. The pleasure model proposes four concepts of pleasure. These are: Physio-pleasure, Socio-pleasure, Psycho-pleasure and Ideo-pleasure.

Physio-pleasure is the pleasure of the experience of use through the senses. Socio-pleasure refers to the social interactions that can be facilitated by the product and the pleasure derived from relationships with others. Psycho-pleasure is similar to Norman's behavioral level of pleasure and is associated with positive emotional responses during use. Ideo-pleasure is similar to the reflective level and refers to the embodiment of people's values in the product, thereby gaining a sense of identity and responsibility (Karmakar & Chowdhury, 2015).

This checklist of pleasure model is intended to be a reference at the end of the design process to help the designer reflect and check whether the final design covers the concepts of pleasure framework. It assesses the application of the expressions behind the product at the visceral and behavioral levels. It assists the designer in clarifying the meaning and impact of the design concept.

Checklist of Pleasure Model			
	Performance	The Visceral Level	The Behavioral Level
Physio-pleasure	Sensory experiences	✓	
Socio-pleasure	Promote social interactions	✓	✓
Psycho-pleasure	Interaction experience		✓
Ideo-pleasure	Aesthetics	✓	
	Values	✓	✓

Table 3.9 Checklist of the pleasure model (Tiger, 1992)

94

Chapter 4 Design Application

This chapter applies the example of the Lululemon brand to demonstrate the feasibility of the guidelines. At the visceral level the packaging design incorporates the *shibumi* aesthetics of Japanese philosophy to achieve the purpose of promoting Lululemon's sustainability philosophy, while balancing the negative rhetoric of Lululemon's history to increase consumer goodwill and expand the consumer base. At the behavioral level, user experience is the center, converting the target group into participants who promote the concept of sustainability, satisfying consumers' sense of participation in the concept of environmental protection in the process of use, and at the same time enhancing users' loyalty to the brand. Finally, based on the appearance and experience level of rational design, the target packaging can be achieved at the reflective level.

4.1 Japanese aesthetic principles in the visceral level

4.1.1 Research the Original Brand Personality

Lululemon was founded in 1998 in Vancouver, Canada by Chip Wilson. Lululemon is a yoga-inspired technical sportswear company for men and women. Their vision was to create a place where people could get more than just gear to sweat; they wanted to create a community center where people could learn and discuss the physical aspects of healthy living, mindfulness and the possibilities of life (Daniels Fund Ethics Initiative, n.d.).

Chip Wilson was inspired by author and philosopher Ayn Rand, he is an Ayn Rand fan, and the company takes its values from the objectivist novel named *Atlas Shrugged,* which argues that the naked pursuit of self-interest should be society's highest ambition (Edwards, 2013). Wilson founded Lululemon with the mission to "elevate the world from mediocrity to greatness" (Daniels Fund Ethics Initiative, n.d., p. 6). The company has adopted the following mission

statement: "Creating the building blocks for people to live longer, healthier, more fun lives" (Daniels Fund Ethics Initiative, n.d., p. 2). To solidify its mission statement, Lululemon adopted seven core values: "quality, product, integrity, balance, entrepreneurship, fun, and greatness" (Daniels Fund Ethics Initiative, n.d., p. 3). Lululemon created a culture of promoting a healthy lifestyle and creating positive change to build a healthier world. Lululemon is committed to building an emotional connection between consumers and the brand, a brand that positions itself as a key member of a cultural movement that fosters an emotional connection with consumers. Lululemon designs its products with the goal of driving movement, differentiating itself from the competition and helping the brand build consumer loyalty. The brand aims to serve individuals with active lifestyles. Lululemon's products are aimed at women who seek a healthy lifestyle while balancing a busy life. Tactile experience with relaxed, naked, held-in, hugged and tight are Lululemon's new Engineered Sensations.

Traits of The Original Brand		
	Traits	Remarks
Tangible	Symbol	
	Name	lululemon
	Sign	
Intangible	Associations	Created a culture of promoting a healthy lifestyle to build a healthier world
	Values	Quality, Product, Integrity, Balance, Entrepreneurship, Fun, and Greatness
	Emotions	Healthier, Positive, Relaxed, Assionate, Free
	Imagery	Products are mostly targeted at women who aim for a healthy lifestyle while balancing a busy life.
	Feelings	Relaxed, naked, held-in, hugged, tight are new engineered sensation

Table 4.1 Traits of Lululemon

4.1.2 Analyze the Original Brand Personality

Strengths:

As mentioned earlier, Wilson founded his company on the values of Ayn Rand. The notion of striving for greatness resonated with Wilson after having read Rand's book *Atlas Shrugged* at the age of 18. Since then, he has utilized the concept as a way to market his brand. This idea of "greatness" contributes to a competitive organizational culture (Daniels Fund Ethics Initiative, n.d., p. 6).

"Get to know our manifesto and learn a little more about what lights our fire." This manifesto clearly shows the backbone of Lululemon and the way they do business (Daniels Fund Ethics Initiative, n.d., p. 6). The manifesto strives toward providing greatness to the people that use Lululemon products. The higher prices Lululemon charges are a sign of excellence and the belief that they are selling more than just clothing to the customers. It is a belief that the customer is buying a lifestyle that comes with the Lululemon brand and the set of values that Lululemon is conveying in the manifesto.

Weaknesses:

However, those who describe the corporate culture as "cultish" and "competitive" argue that the culture creates an environment where employees are pressured to live up to company standards. Critics have sometimes charged Lululemon with having an unethical corporate culture promoting competition over collaboration (Edwards, 2015). Some customers feel that overly aggressive declarations, or obvious promotion of a happy, healthy lifestyle philosophy, are not in line with the traditional philosophy of Buddhist Indian Yoga (Ledford, 2016).

Opportunities:

Some have questioned how this competitive culture obsessed with greatness fits in with the yoga tradition based on Buddhist and Hindu philosophies. Both ideologies promote the notion of ridding one's self of the Ego. The Ego is seen as a source of suffering, and Buddhism is

97

based on the absolution of suffering. Enlightenment is achieved when the Ego has been successfully removed.

Threats:

Wilson created the name 'Lululemon' because he thinks Japanese people can't say the letter 'L.' By including an "L" in the name it was thought the Japanese consumer would find the name innately North American and authentic (Ledford, 2016).

In November 2013, Chip Wilson defended his product by suggesting that women's bodies are to blame for the fabric's sheerness and their tendency for pilling. He also claims that many women buy pants that are too small for them, which wears them out. When questioned about whether Lululemon is truly a clothing retailer for everybody, Wilson stated that the product was appropriate for all sizes but that some people simply misuse the product. Critics viewed this as a sexist comment, exacerbating the issue at hand (Daniels Fund Ethics Initiative, n.d.).

| Strengths | Weaknesses |
| Opportunities | Threats |

SWOT Analysis				
		Helpful to achieving the objective		Harmful to achieving the objective
Internal Origin (attribute of the organization)	Does the brand have a unique backstory or mission?	"Elevating the world from mediocrity to greatness." Mission statement: "Creating components for people to live longer, healthier, fun lives."	Are any brand messages failing to resonate with the audience?	Innovate more sustainable materials that enhance their products, minimize negative impact, and contribute to restoring the environment.
	In what ways is the brand aligned with current mission and business direction?	Quality, product, integrity, balance, entrepreneurship, fun, and greatness.		
	Which elements of the brand resonate with target audience?	Created a culture of promoting a healthy lifestyle	What aspects of the brand are perceived poorly?	Describe the corporate culture as "cultish" and "competitive".
	What parts of the brand are communicated well?	Lululemon has designed products with the goal to advance a movement, stand out from the competition and help brands build consumer loyalty.		
External Origin (attribute of the organization)	Can the brand authentically align itself with Japanese philosophy?	History: competitive culture obsessed with greatness fits in with the yoga tradition based on Buddhist and Hindu philosophies.	Are there any events that may cast any elements of the brand in a negative light?	As a racial discrimination: Wilson created the name 'Lululemon' because he thinks Japanese people can't say the letter 'L.'
	Does Japanese philosophy benefit the business or brand?	Seeks to create a legacy where it operates by transforming communities through its products.		As a sexist comment: women's bodies are to blame for the fabric's sheerness and their tendency for pilling. Wilson believes that if you get sick, it's your fault. And if your life isn't "great," then that's your fault too.
	Is there an existing unsung aspect of the brand that designer could highlight?	Creating bonds with others to build something bigger than ourselves. Innovate more sustainable materials that enhance their products, minimize negative impact, and contribute to restoring the environment. Create "lululemon Like New" to rethink the lifecycle of our gear- trade in	Are downward economic trends likely to impact the business?	Decline in purchasing power of physical stores and increase in online shopping due to coronavirus impact

Table 4.2 SWOT analysis of Lululemon

Strengths

Opportunities

SWOT Analysis		
	Helpful to achieving the objective	
Internal Origin **(attribute of the organization)**	Does the brand have a unique backstory or mission?	"Elevating the world from mediocrity to greatness." Mission statement: "Creating components for people to live longer, healthier, fun lives."
	In what ways is the brand aligned with current mission and business direction?	Quality, product, integrity, balance, entrepreneurship, fun, and greatness.
	Which elements of the brand resonate with target audience?	Created a culture of promoting a healthy lifestyle
	What parts of the brand are communicated well?	Lululemon has designed products with the goal to advance a movement, stand out from the competition and help brands build consumer loyalty.
External Origin **(attribute of the organization)**	Can the brand authentically align itself with Japanese philosophy?	History: competitive culture obsessed with greatness fits in with the yoga tradition based on Buddhist and Hindu philosophies.
	Does Japanese philosophy benefit the business or brand?	Seeks to create a legacy where it operates by transforming communities through its products.
	Is there an existing unsung aspect of the brand that designer could highlight?	Creating bonds with others to build something bigger than ourselves. Innovate more sustainable materials that enhance their products, minimize negative impact, and contribute to restoring the environment. Create "lululemon Like New" to rethink the lifecycle of our gear- trade in

Table 4.3 SWOT analysis of Lululemon (strengths & opportunities)

Weaknesses

Threats

SWOT Analysis		
	Harmful to achieving the objective	
Internal Origin (attribute of the organization)	Are any brand messages failing to resonate with the audience?	Innovate more sustainable materials that enhance their products, minimize negative impact, and contribute to restoring the environment.
	What aspects of the brand are perceived poorly?	Describe the corporate culture as "cultish" and "competitive".
External Origin (attribute of the organization)	Are there any events that may cast any elements of the brand in a negative light?	As a racial discrimination: Wilson created the name 'Lululemon' because he thinks Japanese people can't say the letter 'L.' As a sexist comment: women's bodies are to blame for the fabric's sheerness and their tendency for pilling. Wilson believes that if you get sick, it's your fault. And if your life isn't "great," then that's your fault too.
	Are downward economic trends likely to impact the business?	Decline in purchasing power of physical stores and increase in online shopping due to coronavirus impact

Table 4.4 SWOT analysis of Lululemon (weaknesses & threats)

4.1.3 Check the Unchangeable Original Characteristics

Lululemon's packaging is divided into two categories, one is the shipping box and the other is the shopping bag. The shipping boxes are mainly made of smooth cardboard, mostly shallow brown and white in color, square or rectangular in form, with Lululemon's inspirational statement printed on both side of the box. Reusable shopping bags are mainly made of softer and smoother polypropylene. The shopping bags are available in white, black or red background colors, with printed text colors of white, gold or silver. The shape is a rectangle with rounded corners and the text is printed on the front of the bag, consistent with the design on the shipping box.

Figure 4.1 Lululemon's shipping box (Left) (Pentagram, n.d.)
Figure 4.2 Lululemon's shopping box (Right) (Pentagram, n.d.)

Original Characteristics of The Brand

	Characteristics of shipping	Characteristics of shopping
Color	Shallow brown, White	White, Black, Sliver, Red, Golden
Form	Cubical	Rectangular, Round corner
Text	Lululemon, Inspirational manifesto printed on the side.	Lululemon, Inspirational manifesto printed on the front.
Texture	Even and consistent, Smooth, Thin cheap	Smooth, Soften
Material	Cardboard	Mix of materials(polypropylene),

Table 4.5 Original characteristics of Lululemon

4.1.4 Select Aesthetic Principle from Package Attributes (with Brand Personality)

As shown in Table 4.6, according to the original characteristics of the Lululemon bag combined with their own intuition, designers are able to choose their preference elements freely from the four packaging product attributes: color, shape, text and texture.

Lululemon's packaging base color is monochromatic: naturalness and simplicity can better reflect the feeling of silence and modesty, the use of neutral colors to avoid seeming too feminine, making the public more accepting. Ordinary boxes are usually rectangles, so the design process chooses to combine imperfection elements to make the cubic functional packaging. The text usually explains or expresses the attribute of product, and according to the analysis of weaknesses and threats in SWOT chart, the obvious inspiring slogan brings some negative comments to the brand. It is evident that Lululemon wants to use positive words to inspire people to live a healthy life, so the product will retain influential and representative slogans, but present them in a modesty form that fits the Japanese aesthetic. This packaging reflects the beauty of nature through subdued texture express, the rough touch and delicate details express the roughness in the fine, giving consumers a sense of upscale back to the basics.

Shibumi & Minimalism Aesthetic Elements with Packaging Attributes

	SHIBUMI	SHIBUMI & MINIMALISM	MINIMALISM
COLOR	Balance simplicity with complexity	Subtle details	Purged metaphor
	Balance spontaneous with restrained	Occasionally added a highlight	Repetition
	Enriched	Understated/ Subdued	Neutral
	Not innocent	Simplicity	Industrial
	Add grey from pastels to dark		Monochromatic
	Serenity/tranquillity		Expensive
	Implicitly		White
	Modesty		Black
	Naturalness		Light gray
	Silence		White space/Embrace negative space
FORM	Balance simplicity with complexity	Subtle details	Geometric abstraction
	Balance elegant with rough	Understated/ Subdued	Cubic
	Balance spontaneous with restrained	Simplicity	Purged metaphor
	Serenity/tranquillity		Objective
	Spare elegance		Repetition
	Implicitly		Industrial
	Perfection		Stripes
	Imperfection		Hard-edge
	Symmetry		Blunt
	Asymmetry		Functional
			Lines and planes
			Sense of order
TEXT	Balance simplicity with complexity	Simplicity	Neutral
	Modesty		Cubic
	Perfection		Sense of order
	Imperfection		White space/Embrace negative space
	Symmetry		
	Asymmetry		

Table 4.6 Marked Aesthetic elements with package attributes

TEXTURE	Balance elegant with rough	Subtle details	Repetition
	Balance spontaneous with restrained	Understated/ Subdued	Industrial
	Enriched		Stripes
	Spare elegance		
	Symmetry		
	Asymmetry		

Table 4.6 Marked aesthetic elements with package attributes

4.1.5 Evaluate the Overall Proportion of Japanese Aesthetics (with Brand Personality)

Prerequisite:

1. Based on the explanation in 2.4.6.1.1 the relationship between *shibumi* and modernism, *shibumi>minimalism*.

2. All the same elements can be used freely, and product attribute priority is not considered in the calculation.

Hypothesis:

Shibumi=S=2,

Minimalism=M=1,

The quantity of *Shibumi* attribute=5,

The quantity of Minimalism attribute=4,

It can be derived that:

$(Sy+Mz) / (y+z) = (2*5+1*4) / (5+4) = 16/9 > 3/2$

Therefore, based on the calculated answer, we will know that the preferred style is the Japanese aesthetic.

4.1.6 Create a Mood Board

A mood board is a design tool that helps designers gather ideas and inspiration for their projects. Based on the aesthetic elements selected by the designer in Table 4.6, Figure 4.3 consists of patterns, logo, text, color plate, materials, textures, and illustrations. The color palette is a neutral mix of beige, dark green and brown. The yoga environment filled with silence and quietness. The pattern of the Japanese Zen Garden shows fine textures with order in the roughness. The overlapping painted art models are full of uniqueness and craftsmanship. And the poster depicts the wellness statement created by lululemon for people.
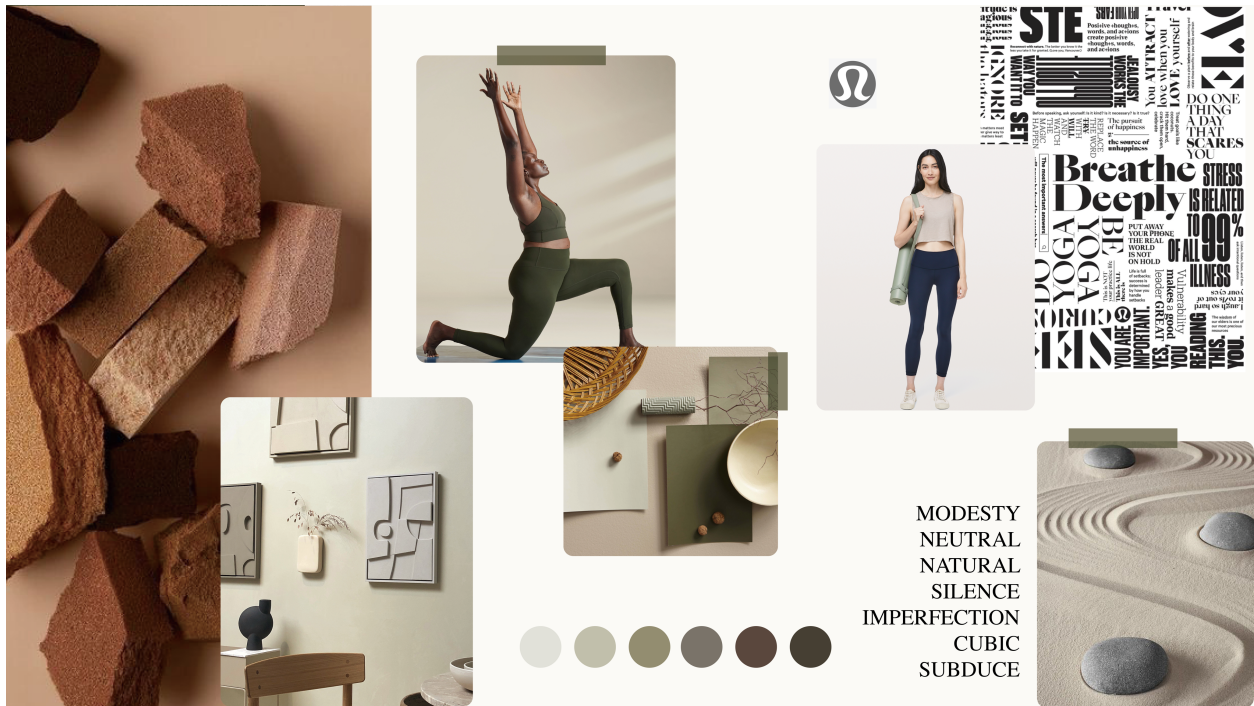
Figure 4.3 Mood board

4.2 *Shibumi* Strategies in The Behavioral Level

4.2.1 Genchi genbutsu (go look, go see) -User Journey Mapping

This process is designed to help designers find problems with the product and improve it in subsequent designs.

The top Table 4.7 is the user journey mapping of the shipping box, for which the major problem is the action of throw or store after the open. The Table 4.8 is user journey mapping of the shopping bag, for which the major problem is action collect. The loyal fans of Lululemon usually have dozens of reusable shopping bags, and the customers need to find a place to store them. Expectedly, not all of those bags can be reused again, so most of them will be kept in the storage. According to the analysis of the threat in the previous Table 4.4 SWOT analysis, the previous epidemic severely affected the purchasing power within the physical stores. The current epidemic is improving, so this application chooses to improve the shopping bags in order to increase the shopping experience in the physical stores and enhance the sustainable use of the package.

User Journey Mapping of Shipping Package					
	GO	SEARCH	GET	OPEN	THROW
User actions	Received information on express delivery Went to the courier room	Arrived the courier room Searched the package from dozens of them	Find it	Open with scissors or knife	Split the box and throw it away
User goals	Pick up the package	Find the package	Carry to home	Try on the product	Keep the clean area
Emotion	Expected	Anxious	Excited	Curious	Disgustingly
Problems		Can not find it quickly	The process of carring may not be able to take other stuff	Auxiliary tools required	Auxiliary tools required. Go out for throwing it or finding a place to store.

Table 4.7 User journey mapping of Lululemon's shipping box

User Journey Mapping of Shopping Bag				
	WAIT	CARRY	OPEN	COLLECT
User actions	Pay for the clothes Waiting for sales to package	Carry the package to home	Open the package to take out the clothes	Save the package in the storage
User goals	Have the clothes	Take to home	Try on the clothes	Reuse
Emotion	Awkward	Expected	Excited	Boring
Problems	No sense of ritual	Not special enough	No sense of ritual	Need a place to store Can not reuse immediately

Table 4.8 User journey mapping of Lululemon's shopping bag

4.2.2 Hoshin kanri (goal alignment) - Job Stories

According to the emotional changes of Table 4.8, designer can find out the pain point of the product. In this project, the problem of collection needs to be fixed. The job stories should be written how to deal with it.

Job story1:

When user <u>opened the package</u>, user want to <u>have an exquisite process</u>, so user can <u>have a sense of ritual.</u>

Job story2:

When users <u>collected the package</u>, they want to <u>have a functional package</u>, so they can <u>reuse it immediately.</u>

Job story3:

When users <u>collected the package</u>, they want <u>it easy to store</u>, so they can <u>keep the home clean</u>.

4.2.3 Kaizen (continuous improvement) - Develop countermeasures

After determining the behavioral motivation, the designer need to select the corresponding solution from Table 3.7. Firstly, the appropriate material is selected in the category of packaging, secondly, the verb that needs to improve functionality or usability is found, and finally, the purpose of sustainable use is selected.

4.2.4 Kaizen (continuous improvement) – Visual Communication

Seven sketches visualize the different design ideas based on selections of Table 3.7. In this step, designers not only design for the key word that was selected before, but also the features of the material and making process need to be considered. In the Lululemon application, concept 7 is selected. The rigid box with high durability was chosen in order to enhance the functionality of the collection and to achieve the purpose of being a container.

Category	Improve functionality	Reusable (alternative purpose)
Chipboard	Take	Container/Storage
	Lift	
	Dismantle	
Paperboard Cartons	Stack	Daily necessities
	Collect	
	Throw	Art Decoration
Rigid Boxes	Pull	
	Tear	Fun Activities
	Turn	

Figure 4.4 Concept 1

		Lift	Container/Storage
		Stack	Daily necessities
	Paper Bags	Roll	Art Decoration
		Fold	Compost
		Collect	Cover
		Throw	Fun Activities

Figure 4.5 Concept 2

	Category	Improve functionality	Reusable (alternative purpose)
	Chipboard	Take	Container/Storage
		Lift	
		Dismantle	
	Paperboard Cartons	Stack	Daily necessities
		Collect	
		Throw	Art Decoration
	Rigid Boxes	Pull	
		Tear	Fun Activities
		Turn	

Figure 4.6 Concept 3

	Category	Improve functionality	Reusable (alternative purpose)
	Chipboard	Take	Container/Storage
		Lift	
		Dismantle	
	Paperboard Cartons	Stack	Daily necessities
		Collect	
		Throw	Art Decoration
	Rigid Boxes	Pull	
		Tear	Fun Activities
		Turn	

Figure 4.7 Concept 4

Category		Improve functionality	Reusable (alternative purpose)
	Chipboard	Take	Container/Storage
		Lift	
		Dismantle	Daily necessities
	Paperboard Cartons	Stack	
		Collect	
		Throw	Art Decoration
	Rigid Boxes	Pull	
		Tear	Fun Activities
		Turn	

Figure 4.8 Concept 5

Category		Improve functionality	Reusable (alternative purpose)
	Chipboard	Take	Container/Storage
		Lift	
		Dismantle	Daily necessities
	Paperboard Cartons	Stack	
		Collect	
		Throw	Art Decoration
	Rigid Boxes	Pull	
		Tear	Fun Activities
		Turn	
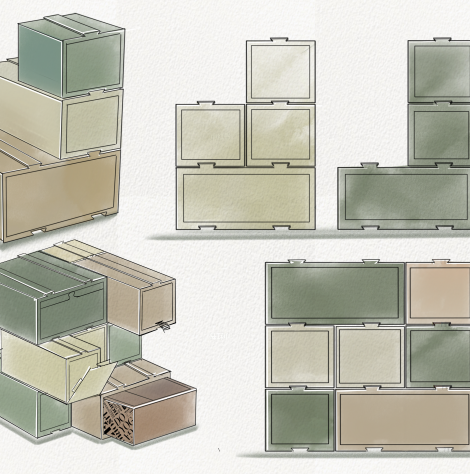
Figure 4.9 Concept 6

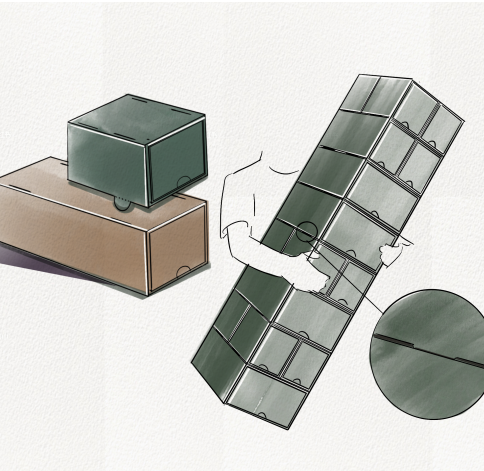| Category		Improve functionality	Reusable (alternative purpose)
	Chipboard	Take	Container/Storage
		Lift	
		Dismantle	Daily necessities
	Paperboard Cartons	Stack	
		Collect	
		Throw	Art Decoration
	Rigid Boxes	Pull	
		Tear	Fun Activities
		Turn	

Figure 4.10 Concept 7

4.2.5 Kaizen -Scenarios and Storyboards (Hensei)

The storyboard is the final step for *hensei* as kaizen. The whole process from browsing, buying to reusing consists of 11 actions. The entire use process maintains a more positive mood among users. They accomplish the environmental mission of sustainable use while collecting.

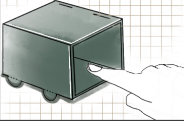| Storyboard of Shopping Package					
	Look	**Go**	**Find**	**Read**	**Listen**
User actions	Users receives an advertising email from the official website of lululemon	Users go shopping in brick-and-mortar stores	Users find the packaging in the ad	Users read the selection specification	Before checkout,the cashier will talk about how to reuse the packaging while packing
User goals	Learn about what's new	Shopping for clothes	Practical observation	Choose the packaging that meets their preferences	Understand the collection methods
Storyboard					
Emotion	Curious	Excited	Attraction	Enjoyment	Questioning
Problems					Understanding of new things

Table 4.9 Filled storyboard

	Lift	Open	Take out	Press	Insert	Put back
User actions	Users carry the new packaging	Users insert their index finger into the half-circle space	Users take out the new clothes	Users presse the split line from the inside of the box with their finger	Users insert the half circle parts of one package into the crevices of other one.	Users put some things that need to be stored
User goals	Take it to home	Pull it put	Try on the cloth	Make insert parts	Make one piece	Reuse immediately
Storyboard						
Emotion	Delight	Excited	Satisfaction	Curious	Sense of accomplishment	Sense of responsibility
Problems				Exploration of new things		

Table 4.9 Filled storyboard

4.2.6 Final Delivery

4.2.6.1 Graphic Design

As the target customer base is gradually balanced from a large percentage of female to male products. So the use of neutral colors can satisfy more consumer groups. The color choice are olive green, almond cream and shadow white, they act as a neutral earthy color combined with matte textures to accentuate the modesty and natural feel. This color with associative properties awakens memories of sensations, images and events that seem to be stored in the sensory-filled brain. Simple monochrome can better adapt to the decorative style of the home, it has a functional value and decorative significance, placed in the home will not be particularly abrupt.

The text design retains the Lululemon manifesto, as the inspirational and positive slogan has attracted many fans. The improved packaging hides the original prominent bold font color. The use of an embossing process reflects the subtle texture and silence feeling. Users can barely resist touching the text; the raised manifesto is as appealing to their eye as it is to their fingertips. It retains the original corporate culture while combining the modesty characteristics of *shibumi*. It balances the negative comments that the original corporate culture was too aggressive.

The redesigned packaging is available in three sizes for packaging different types of gear to avoid waste. Gaps and divisions in the joints represent imperfections in the overall package, which are meant to be better assembled and reused. When they are put together, the imperfect features become complete. Because of the imperfection property, it can increase the function of packaging collection and enhance the consumer's awareness of sustainability.
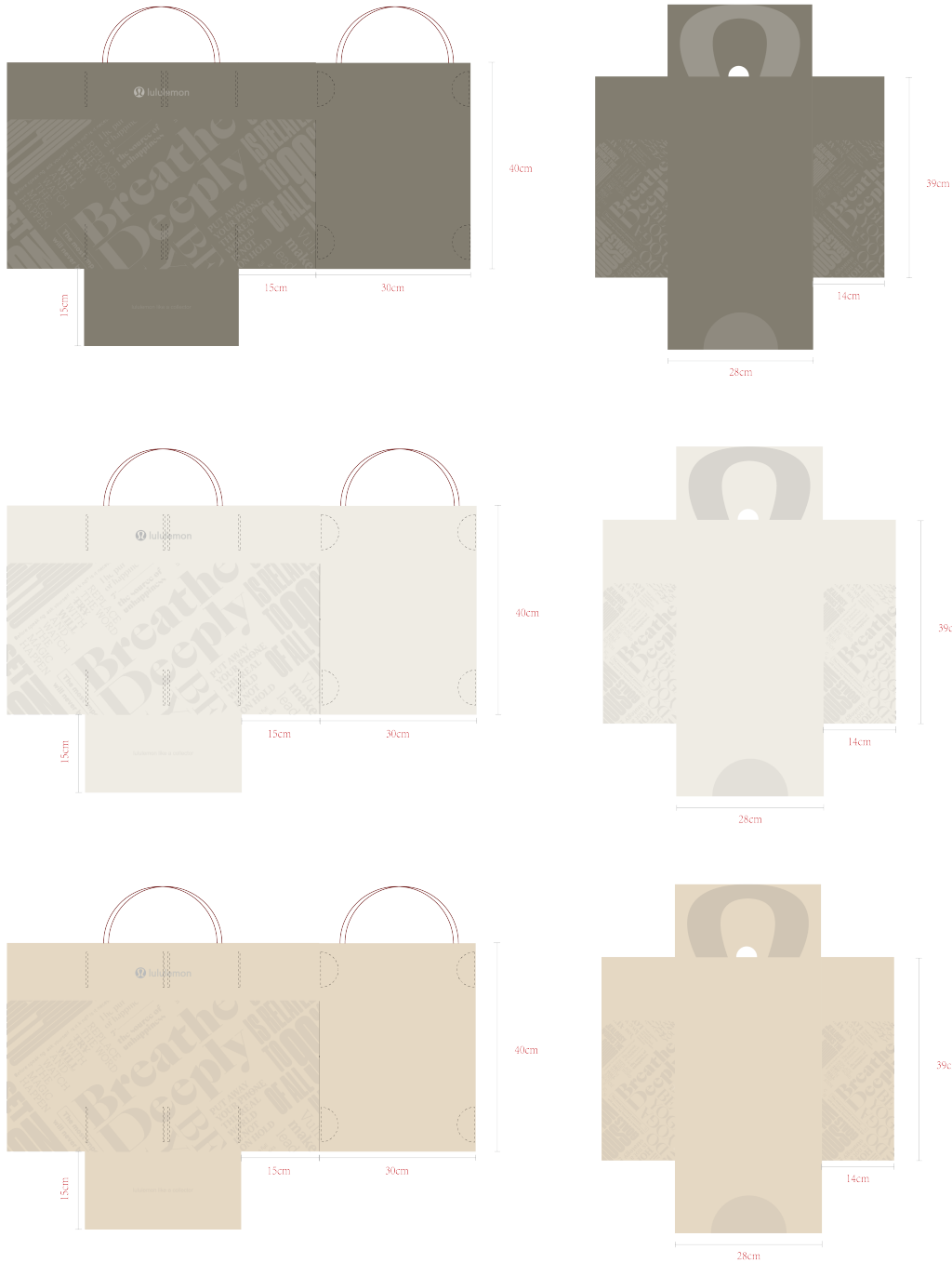
Figure 4.11 Dieline of large package

Size: 40cm*30cm*15cm   Thickness: 5mm&10mm (left)

Size: 39cm*28cm*14cm   Thickness: 5mm (right)
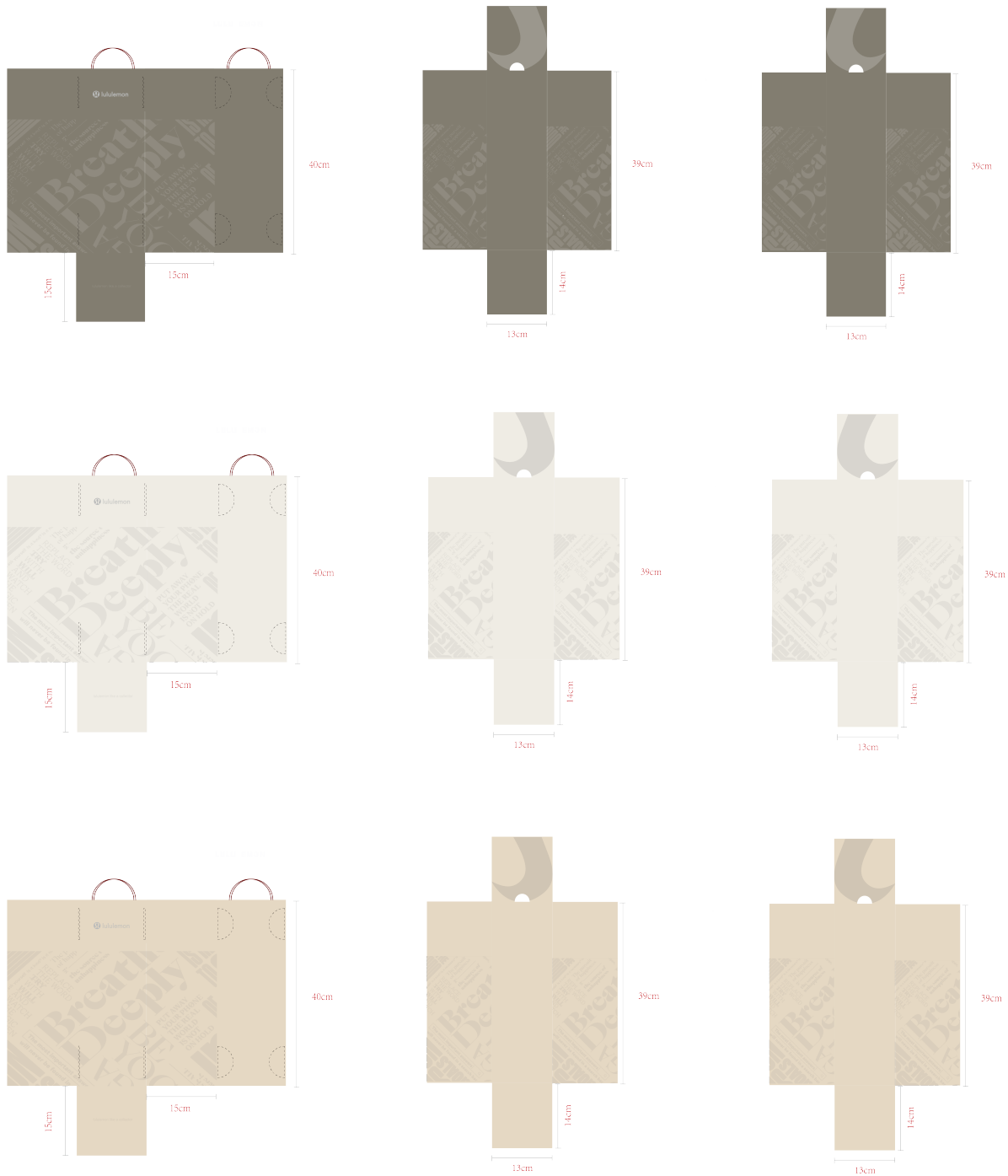
Figure 4.12 Dieline of middle package

Size: 40cm*15cm*15cm   Thickness: 5mm&10mm (left)

Size: 39cm*13cm*14cm   Thickness: 5mm (middle)

Size: 39cm*13cm*14cm   Thickness: 5mm (right)
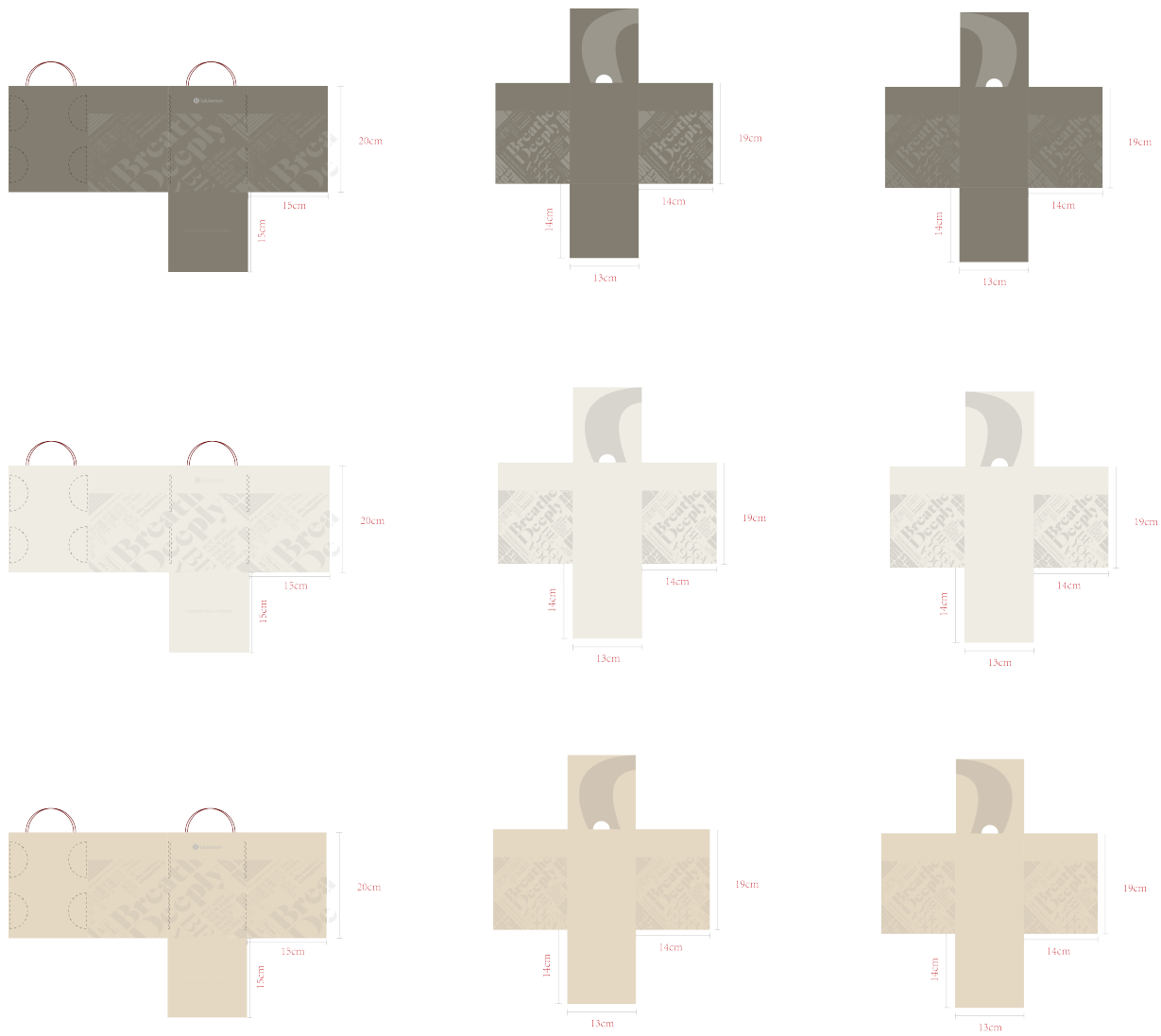
Figure 4.13 Dieline of small package

Size: 20cm*15cm*15cm   Thickness: 5mm&10mm (left)

Size: 19cm*13cm*14cm   Thickness: 5mm (middle)

Size:19cm*13cm*14cm   Thickness: 5mm (right)

The debossing process is intended to show the part of the brand logo on the draw side, through the user collection and placement users can design a variety of patterns that can be the whole standard logo, or can also be their own creation. It can be the same color or a matching color, depending to a greater extent on the user's own design preferences.

Figure 4.14 Example of Pattern design

4.2.6.2 CAD Model

The CAD models show the final design according to the design guidelines. Create a sustainable package with a reflective level through a rational design at the visceral and behavioral level. At the visceral level, Japanese aesthetics are used to attract consumers who are not sensitive to the idea of sustainability. At the behavioral level, the simple and creative user experience satisfies and cultivates a sense of participation. Every time for collection will enhance the users' sense of social responsibility.

Figure 4.16 Final CAD rendering 1

Figure 4.17 Final CAD rendering 2

Figure 4.18 Final CAD rendering 3

Figure 4.19 Final CAD rendering 4

4.3 Pleasure model in the reflection level

  The checklist for the pleasure model is designed to help the designer conduct a final review of the product design after it is completed. Designers can use Table 4.11 to examine the pleasure models to see whether the product satisfies the needs of emoti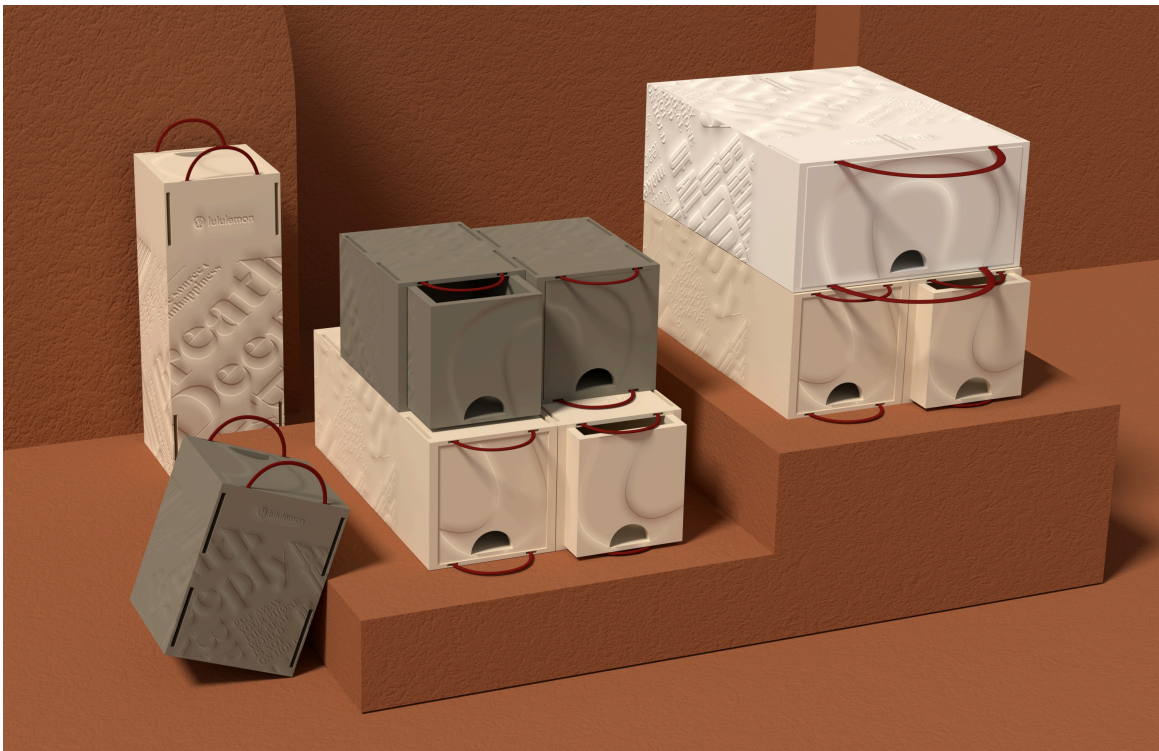on at the visceral and behavioral levels. During the checking process, the designer can reflect on the product concept to get a clear picture of what the product means to the user. The purpose of this step can also help the designer find the selling points of the product and pave the way for writing engaging consumer slogans.

  In Lululemon's design, the package stimulates the consumer's sensory experience on a visceral level by combining Japanese aesthetics to achieve the physio-pleasure. Neutral colors, a simple and complex form, quiet but positive words and elegant roughness texture provide visual and tactile pleasure.

  The design of the box is not just a Lululemon product, but a campaign in which some consumers will spread their creative combinations (visceral level) or collection methods (behavioral level) on the web, and commenters will comment positively on this behavior. The campaign brings social pleasure to users by enhancing social interaction.

  The box is explicitly intended for sustainable use, guiding consumers to collect and store clothes in a patchwork way. The simple and fluid process of use (behavioral level) avoids negative emotional reactions from the user, which leads to psychological pleasure.

  The appearance of the package uses aesthetic elements with Japanese philosophical principles (visceral level) to enhance consumers' aesthetics and spread the concept of sustainability. It applies the concept of emotional attachment in the process of use (behavioral

level), which motivates the user to develop a labor and love relationship with the package, and unconsciously completes the behavior of the sustainability concept. Thus, the purpose of ideo-pleasure can be also achieved in this way.

Checklist of Pleasure Model			
	Performance	The Visceral Level	The Behavioral Level
Physio-pleasure	Sensory experiences	✓ Japanese aesthetics	
Socio-pleasure	Promote social interactions	✓ Creative combinations	✓ Collection methods
Psycho-pleasure	Interaction experience		✓ Easy and fluent use experience
Ideo-pleasure	Aesthetics	✓ Improve aesthetics	
	Values	✓ Spread the concept of sustainability	✓ Complete the behavior of the sustainability

Table 4.10 Marked checklist of pleasure model (Tiger, 1992)

Chapter 5 Conclusion

This thesis extracts the concept of sustainability from Japanese philosophical thought and applies it to product packaging. The sustainable expression of *Wabi-sabi* is to reduce a product from being thrown in the trash or one less thing being produced by keeping something old. The appearance of the packaging applies Japanese aesthetic principles, and the design methodology incorporates Japanese *shibumi* strategies to help designers enhance the perceived value of the product to customers at the visceral, behavioral and reflective levels of design.

These sustainable packages can be used not only for lululemon products, but also for lots of household items, letters, receipts, stationery, jewelry and other items that can be stored in an appropriate size. To further develop sustainable boxes with the Japanese philosophy, it will be combined with marketing to promote the act of collecting packaging and stimulate consumption. For example, for every three boxes collected, there will be a 10% discount on the next purchase, increasing the interest of consumers who are not sensitive to the new package or the concept of sustainability and expanding the group of consumers who participate in the activity.

This thesis is a bold attempt to transform packaging that is not valued by consumers into a product that embodies human values through innovative design, and to improve packaging waste caused by the traditional impressions of how consumers view the value of packaging. The original definition of packaging is to protect product safety and as a transportation carrier. With the development of the brand effect, more retailers have conveyed the brand personality and culture through the packaging, which indicates the brand attitude to achieve the effect of secondary publicity. The purpose is to provide a better user experience and increase consumer loyalty. In this paper, we give the product packaging itself a higher value to convey the concept

of sustainable use. In the emotional sustainable design, the consumer is transferred from the user's perspective to the participant of the environmental protection concept. The mission of environmental protection is accomplished through the relationship of labor and love in the process of continuous use.

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