



DOES GREEN MEAN GREEN TO YOU?

Exploring the role of packaging design elements
in guiding consumer perception

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Abstract

Packaging design has been actively used as a competitive marketing tool, especially in the context of sustainability marketing. This phenomenon is particularly conspicuous in Finnish milk packaging design. Through specific packaging design elements, companies claim corporate social responsibility and communicate the product's ecological aspects in an attempt to persuade consumers to join the eco-friendly movement. However, can packaging design elements actually function as an ecological cue for guiding consumer perception?

The aim of this thesis was to examine consumer perceptions of ecological cues embedded in packaging design. This study brings a novel approach that examines packaging design elements through the lens of the consumer responsabilization process. Following the exploratory nature of this study, a qualitative study was conducted, comprising of 12 in-depth interviews. The collected data was evaluated through thematic analysis. The interpretation of the themes that emerged from the data analysis was based on a theoretical framework derived from consumer responsabilization theory and packaging design literature.

The findings from this study show that consumers can be guided by ecological cues in packaging design through the four phases of the consumer responsabilization process. The latter leads consumers to regard consumption of eco-friendly packaging (and the product within) as a means of fulfilling social responsibility. However, this study found that consumer culture also plays a significant role in constructing meaning around packaging design elements, which influences the consumer responsabilization process. Based on the synthesis of the findings from this study, a conceptual framework was constructed to explain the influence of the consumer responsabilization process and consumer culture on consumer perception of ecological cues in packaging design.

The findings suggest that companies can practice more fine-tuned sustainability marketing by being actively involved in guiding consumer perception towards sustainability through packaging design. While this thesis demonstrates the applicability of consumer responsabilization theory in packaging design and consumer research, the theory needs to be explored in different contexts. Moreover, the changing consumer culture should be more investigated in terms of its influence on consumer perception of marketing stimuli.

Keywords packaging design, consumer perception, consumer responsabilization, consumer culture, sustainability marketing

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1. Introduction

1.1 Background

Sustainability has become an increasingly important component of many companies' corporate strategies. This is demonstrated by the following quote from Valio, the largest dairy firm in Finland:

We want to be part of the solution to global challenges: we are aware of our environmental and climate impacts, and we take active measures to reduce them. And we are determined to improve animal and human welfare. (...) A goal-oriented sustainability programme and stakeholder cooperation is a part of our strategy (Valio Ltd., 2020).

In the 1960s, these types of ideas would have sounded strange to consumers. However, since the 1990s, sustainable strategy has become mainstreamed in business as the interests in social responsibility have increased in the market (Caruana & Crane, 2008; Shamir, 2008). As a result, it is no longer odd for consumers to encounter sustainability claims in virtually every consumption activity. As corporations have been under pressure to fulfill the socially required corporate social responsibility (CSR), consumers have been also urged to exercise their responsibility through consumption to drive positive outcomes for society (Dickinson & Hollander, 1991).

This phenomenon is particularly conspicuous in the Finnish dairy industry. Valio and other dairy firms of various sizes in Finland have quickly moved towards adopting social responsibility as a core company value, which has explicitly manifested itself in milk packaging. For instance, Valio became world's first company that started using plant-based milk cartons in 2015 (Valio Ltd., 2019). Arla Foods, another dairy giant, achieved the goal of making 600 million fresh milk cartons renewable in 2019 (Arla Foods, 2019). These types of efforts have been communicated through milk packaging design with the corresponding use of ecological cues that call for consumer responsibility.

The assumption that underlies the idea of embodying sustainable strategy can be explained through the theory of consumer responsabilization, which expects and assumes the

reflexive moral capacities of consumers (Shamir, 2008). First, companies assume that consumers are responsible enough to prefer socially beneficial product features (Vogel, 2006). Second, companies also assume that they can participate in shaping the meaning of responsible consumption (Caruana & Crane, 2008). However, the question of consumer responsibility emerges: is consumer responsabilization sufficient for convincing consumers to join a company's sustainable practice by, for example, choosing the company's products over others that do not have such a sustainable practice?

To date, studies on consumer responsibility have been two-fold, focusing on traits of consumers (e.g. Peattie, 2001; Schaefer & Crane, 2005; Harrison et al., 2005) or the role of corporate communications in shaping the meaning of consumer responsibility (Caruana & Crane, 2008; Giesler & Veresiu, 2014). However, the previous studies are limited to explain how consumers actually perceive companies' expectations for consumer responsibility embodied in, for example, packaging design. Therefore, this thesis takes a different approach. In contrast to the organizational perspective applied in a large number of earlier studies, it focusses on the consumer interpretation of consumer responsabilization as demonstrated by ecological cues in milk packaging.

In terms of previous packaging design literature, there is still a lack of research on consumer interpretations of packaging design elements, although various dimensions of packaging design has been studied in many respects in marketing research (e.g. Silayoi & Speece, 2007; Wells et al., 2007) and packaging design has become a competitive marketing tool (Rettie & Brewer, 2000). Specifically, the cultural understanding of such interpretations has been neglected in packaging design research since most of the research has mainly investigated the temporal and psychological impacts of design elements on consumers through quantitative research (e.g. Van Birgelen et al., 2008; Koenig-Lewis et al., 2014; Martinho et al., 2015; Mutsikiwa & Marumbwa, 2013). Hence, qualitative studies of consumer perceptions of packaging design elements with regard to social and cultural constructs such as shared meaning or language should be more explored within packaging design literature.

1.2 Research objectives and questions

This thesis aims to examine consumer perception of ecological cues in packaging design. To fill the research gaps in previous literature, this thesis suggests a novel approach that examines consumer perceptions of ecological cues in packaging through the lens of consumer responsabilization theory. Specifically, this study challenges the assumption of consumer responsabilization embedded in milk packaging design as a manifestation of sustainable strategy. The assumption is that consumer perception can be guided by packaging design. Moreover, the present study also aims to complement packaging design research by providing a cultural understanding of consumer experience with ecological packaging design elements.

The main research question that this thesis aims to answer is:

- Can packaging design function as an ecological cue to guide consumer perception?

This question is further divided into two sub-questions:

- What is the role of individual packaging design elements in the process of consumer responsabilization?
- How do consumers construct meanings of an ecological nature through specific design cues on milk packages?

The remainder of this thesis is structured in the following manner. Chapter 2 examines the relevant literature of sustainability marketing, packaging design, and consumer responsabilization. The theoretical framework of this thesis is established by synthesizing and critically assessing the existing literature, upending the conventional perspective typically adopted in consumer responsabilization. Chapter 3 describes the qualitative in-depth interview study that was conducted in Finland with 12 participants as part of the research. Chapter 4 analyzes the findings from the empirical research through the lens of the theoretical framework and compares them with insights from the existing literature. Chapter 5 discusses the ways in which the present research contributes to broadening academic discussion on packaging design. Finally, Chapter 6 offers a brief conclusion, practical implications for marketing and packaging design, limitations of this study, and suggestions for future research.

2. Literature Review

This chapter establishes the theoretical foundation for the present study on consumer perception of ecological cues embedded in milk packaging. First, 2.1 reviews the literature on sustainability marketing in terms of consumer research. Then, this thesis is positioned within the relevant study stream. 2.2 presents previous research on sustainable packaging and addresses the need for a better cultural and social understanding of consumer perception of ecological cues embedded in packaging. After that, 2.3 explains the concept and the process of consumer responsabilization. Lastly, 2.4 introduces the theoretical framework for this study.

2.1 Consumer studies within sustainability marketing

When considering ecological cues on packaging as a sustainability marketing tool, it is essential to examine how such a tool was developed. The following subsections focus on consumer research in order to establish a building block for examining consumer perception of packaging design elements, which comprises the research focus of this thesis.

The literature review was conducted according to the following steps. First, previous assessments of sustainability marketing by McDonagh and Prothero (2014), Kilbourne and Beckmann (1998), and Peattie (2010) were read in full and a list of articles focusing on individual consumer research was compiled. Second, the final selection of articles was confirmed by reading abstracts and conclusion, then full papers. Third, the literature was synthesized and critically assessed according to three categories: individual traits of the green consumer, consumer intuitive and emotional factors for ecological consumption, and sustainability marketing as viewed through consumer culture studies. Finally, this thesis was positioned within the academic discourse to which its findings aim to contribute.

2.1.1 Traits of green consumer

Earlier research has analyzed and sought to understand the “green consumer” in order to identify certain consumer groups that would be more favorable to eco-friendly products. Relevant variables include sex (Laroche et al., 2001), age, income, family composition, level of education (Peattie, 2010; Robinson & Smith, 2002), and social context (Olli et al.,

2001). However, the findings have been inconsistent in terms of the impact of consumers' demographic characteristics on eco-friendly consumption (Diamantopoulos et al., 2003; Kilbourne & Beckmann, 1998). Thus, the value of the demographic research on green consumers has been limited, especially with regard to understanding consumer responses to ecological cues (Peattie, 2010).

Consequently, other individual characteristics of green consumers have been investigated. The research has mainly consisted of a series of studies on economic rationality (Stern, 1999) and environmental knowledge of consumers (Bartkus et al., 1999). In terms of economic rationality, some research has shown that economic incentives such as financial rewards and subsidies for specific products or services and penalties for particular behaviors could be effective in influencing eco-friendly consumption (Coad et al., 2009; Stern, 1999). However, the correlation between consumer response and financial incentives is not always consistent (Sorrell et al., 2000). Therefore, the rational choice approach also cannot fully explain consumer behaviors in the context of green consumption.

In addition, studies about the effectiveness of environmental knowledge on green consumption have also shown the inconsistent findings. Bartkus et al. (1999) found that there is a positive relationship between environmental knowledge and eco-friendly consumer behavior, whereas more recent studies demonstrated the weak relationship between these factors (Pedersen & Neergaard, 2005) or even the negative impact of having more knowledge, such as feelings of confusion or being overwhelmed (Moisander, 2007). These studies show that environmental knowledge has limited use for understanding consumer responses to ecological cues embedded in packaging.

2.1.2 Emotional factors in eco-friendly consumer behaviors

Compared to the other research domains, a large number of studies on intuitive and emotional factors have consistently shown the significant impact of emotions on eco-friendly behaviors (e.g. Antonetti & Maklan, 2014; Wang et al., 2014). The following paragraphs illustrate the previous research on emotional factors in green consumption.

In order to establish a clear conceptual basis for the research of emotions, the definition and dimensions of emotional responses must first be clarified. To start, emotion is defined

as a multi-faceted feeling that reflects information about the relationships between consumers and their physical and social environments (Frijda, 1986). The nature of emotion is interpretative since emotions do not arise from the perceived environment per se, but rather from the “meanings of the situation”—in other words, the cognitive evaluation of the perceived situation by consumers, which is called “appraisal” (Frijda, 1986; Desmet & Hekkert, 2007; Lambie & Marcel, 2002). Second, emotional responses can be categorized into two broad concepts: integral and incidental emotional responses. In the context of marketing, the former is triggered by marketing stimuli or contexts created by marketers who aim to influence consumer decisions (Achar et al., 2016; Pham, 2007). The latter arises not from the object such as a product, but from other emerging sources unrelated to evaluation or purchasing decision of the product (Pham, 2007). Therefore, companies try to yield positive appraisal of the product or marketing stimuli that elicit favorable integral emotions.

Within sustainability marketing research, a number of emotions have been found to be effective for influencing consumer decisions and initiating behavioral tendencies (Seva et al., 2007). For instance, fear appeals have long been used in environmental marketing campaigns to communicate messages about climate change with disastrous and dramatic environment-related episodes (O’Neill & Nicholson-Cole, 2009). Guilt has also been extensively used in advertising to capture consumer attention, create specific attitudes to the product, and increase intention to purchase (Antonetti & Maklan, 2014). In addition, Harth et al. (2013) found that pride positively influences favorable attitude to environmental protection in-groups, while anger precedes punish intentions toward offenders against environment.

However, it is significant to note that emotions are fundamentally spontaneous by nature. Thus, they are limited in that they are unable to fully explain how the meanings of ecological cues have historically evolved in certain context. Moreover, it is important to recall that a consumer perception is influenced by their moral views (Thøgersen, 1999), which are complex and related to social and cultural issues. Therefore, it is crucial to understand the social and cultural factors that can influence consumer interpretation of packaging design as a marketing vehicle.

2.1.3 Consumer culture

Consumer culture research provides a broader understanding of the role of cultural factors in shaping consumer interpretation of marketing stimuli. For example, Kilbourne and Beckmann (1998) contended in their review that conventional environment-related studies within marketing and consumer research had mostly been micro-focused and lacked social and cultural understandings of green consumption. Indeed, consumer culture research has emerged as a significant subset of sustainability study within the field of marketing, offering a holistic perspective on social and cultural factors that influence consumer perceptions of sustainability marketing. The following paragraphs outline consumer culture studies and summarize the role of consumer culture in sustainability marketing including packaging design.

First, consumer culture researchers posit that consumers are not homogeneous and (pre-) existing in the market, addressing the strong relationship between the culture and consumption (Thompson, 2004). The relationship is sustained and strengthened by consumer goods that represent a significant medium of culture (McCracken, 2005). According to McCracken (2005), consumers define themselves through the private and public meanings held by goods. Through consumption, their worlds are constructed from meanings drawn from these possessions. As a result, consumer goods become a “templates of the self” (McCracken, 2005, p.3).

When considering the significance of goods, consumer culture theory can be seen as closely connected to materialism. The latter can be defined as a value structure in which individuals seek values beyond the fundamental benefits of the possessed products (Kilbourne & Pickett, 2008). For example, a materialistic individual might seek hedonic value from luxury goods, more than their functional value. In this context, the consumed products shape the consumer’s identity and further heighten their subjectively perceived well-being of their lives. Giddens (1991) argued that this self-identity project is an everlasting process without completion since the concept of the self is constantly reinvented, with people seeking out ever newer experiences. Thus, consumers continue to “want to want” (Campbell, 1987, p. 89), with the desire to unearth new potential selves—a desire that manifests itself as the possession of goods.

Second, within the context of sustainability issues, goods can be used to create pressure for a more sustainable society through the communication of embedded environmentally conscious meanings (McCracken, 2005). Although the insatiable nature of materialism has been criticized by ecological enthusiasts and social scholars (McCracken, 2005), the goods can ironically lead consumers to pursue a more ecological lifestyle by communicating a culture desired by consumers. Such a culture embodies “market mythologies” that serve as a source of meaning that consumers interpret and use to build their identities (Thompson, 2004). As a result, consumers purchase the “material green”—environmental nature embodied as a product—to conform to a particular image (Connolly & Prothero, 2003) and use the consumption as a cultural strategy (Dolan, 2002).

The market mythologies and meanings of the consumption are at least partly derived from the marketing process that attaches particular sustainability-related images to products (Connolly & Prothero, 2003). By understanding the role of consumption in shaping self-identity, marketers can play an instrumental role in guiding consumers to interpret the products in a certain way and to realize the desired identity through consumption. Furthermore, they can cultivate the continuous commitment of consumers, which results in a powerful consumer culture that in turn begets even more consumption (Schouten & McAlexander, 1995). Thus, marketers can “create” consumers by forging certain aspects of consumer culture (Thompson, 2004).

In terms of marketing methods, packaging plays a significant role as a medium of consumer culture that is communicated through various design elements, including structure, visuals, and texts. To increase consumer appeal, packaging design can be changed to communicate not only intimacy and superiority but also narratives that echo brand values and marketing campaigns (Kniazeva & Belk, 2007). 2.2 discusses in detail the literature on packaging design and its role in marketing communications.

However, packaging has received little attention within consumer culture research, especially in relation to green consumption, despite its significance for sustainability marketing. In accordance with the research objective of examining how consumers construct ecological meanings through packaging design, this thesis aims to contribute to the sustainability marketing research by providing a better cultural understanding of consumer perceptions of packaging.

2.2 Sustainable packaging research

Marketing research has addressed many aspects of packaging design, including the importance of its role in communicating values related to brands and products. However, packaging design can be a challenging topic with regard to sustainability since it must consider not only marketing objectives but also environmental impact (Azzi et al., 2012). Despite the challenges, packaging design has rapidly evolved towards sustainability, resulting in the proliferation of “green packaging.” as environmental concerns have become more predominant in society. However, to consumers, is the green also the new black?

The following sections establish the theoretical background required to answer this question. First, previous studies on packaging design are discussed. In keeping with the thesis objective, the literature review was limited to marketing and communication, excluding the fields of packaging design development or design itself. Second, the conceptualization of sustainable packaging is highlighted, revealing a lack of consideration for the consumer perspectives. Lastly, the previous research on consumer responses to sustainable packaging is reviewed and this thesis is positioned within marketing-related literature on packaging.

2.2.1 Packaging design for marketing and communication

Typically, packaging design is the first touch point that consumers experience with a product. Considering that consumers make about 75% of purchasing decisions at the point of sale (Connolly & Davison, 1996), packaging design plays a significant role in these decisions (Rettie & Brewer, 2000; Azzi et al., 2012; Clement et al., 2013). Indeed, packaging design can attract attentions, communicate substantial brand attributes and consequently sell the product by stimulating customers’ purchasing decisions (Silayoi & Speece, 2007; Wells et al., 2007) as the “silent salesman on the shelf” (Pilditch, 1961 as cited in Rettie & Brewer, 2000, p. 3). Packaging also shapes consumer expectations, evaluations and experiences of the product (Orth & Malkewitz, 2008). Due to its pivotal role in communication, packaging has been actively used as a competitive marketing tool (Rettie & Brewer, 2000).

The impact of visual communication on the packaging is more powerful in the purchasing process for low-involvement commodities—which are typically low price and entail routine purchasing decisions (e.g. buying milk)—compared to other products (Silayoi & Speece, 2004). This is because little effort is put into searching for product information and evaluating alternative products, resulting in a quick purchasing decision. In this context, packaging becomes the key factor that influences product positioning, the purchasing process, and brand loyalty (Mutsikiwa & Marumbwa, 2013). Hence, consumers are significantly influenced by visual cues displayed on packaging for low-involvement products such as milk. However, the research on the power of packaging design in terms of sustainability has received little attention thus far (Steenis et al., 2017). Therefore, this thesis aims to contribute to packaging literature by providing the findings of consumer perceptions of sustainable packaging.

2.2.2 Sustainable packaging from a company perspective

Sustainable packaging can be classified into three categories: governmental sustainability, scientific sustainability, and consumer sustainability (Boks & Stevels, 2007). First, governmental sustainability refers to regulations or legal requirements such as using only approved materials. Second, scientific sustainability is concerned with the impact of packaging for the environment from the viewpoint of life cycle assessment (LCA). Lastly, the consumer sustainability comprises consumer perception of the eco-friendliness of packaging.

Within these three categories, sustainable packaging is mostly studied in the context of scientific category (Glavič & Lukman, 2007). For instance, tools and guides for evaluating and supporting packaging design have been developed in an attempt to define eco-friendly packaging. Life cycle assessment methodology has been extensively used as a guide to evaluate the environmental sustainability of specific packaging systems (e.g. Azzi et al., 2012; Keoleian et al., 2004; Verghese et al., 2010). For instance, the LCA viewpoint on packaging mainly focuses on the environmental impacts derived from materials and energy used for packaging throughout its life cycle. However, it is still a broad concept and does not specify the conditions that eco-friendly packaging should entail or the forms that it should take.

Using LCA as a guide, tools for guiding decision-making on packaging design have been developed. These include the Packaging Impact Quick Evaluation Tool (PIQET) by the Sustainable Packaging Alliance in Australia (Verghese et al., 2010) and Comparative Packaging Assessment (COMPASS) by the Sustainable Packaging Coalition in the US (Azzi et al., 2012; Verghese & Lewis, 2007). The common definition used by both organizations is that sustainable packaging should increase societal benefits and the level of health and safety for society by complying with market standard for costs and technology and optimizing the use of clean energy and materials.

However, these definitions and guides fundamentally adopt a managerial point of view, and do not take into account the consumers' perspective. Although they establish a framework for guiding the production of eco-friendly packaging, which is intended to be followed by companies, there are limited studies about consumer perceptions of such packaging (e.g. design elements perceived by consumers as ecological cues or cues that create positive or negative consumer responses). Moreover, the scientific sustainability cannot explain the rationale behind the packaging design choices—which comprise the very first part of the design process—since it solely focuses on the impact of packaging, which is typically the last part of the process.

Considering real environmental impact can only be achieved through the actual choices made by consumers, it is essential to understand sustainable packaging from a consumer perspective since this may lead to more effective solutions for sustainable development. Hence, this thesis aims to bring a novel approach to sustainable packaging research by providing a consumer perspective on such packaging design through the lens of consumer responsabilization theory, which is explained in 2.3.

2.2.3 Sustainable packaging cues

When looking at a product, consumers evaluate the eco-friendliness of the packaging based on available cues that reflect the company's design goals (Bloch, 1995). Thus, it is essential to examine the packaging cues in order to assess how they are perceived by consumers. Packaging cues are generally classified into three categories: structural, graphical, and verbal or informational (Underwood, 2003; Magnier & Cri , 2015). The following paragraphs provide an overview of sustainable packaging cues that form the basis of the analysis of packaging design analysis.

Firstly, structural cues relate to the physical structure of the packaging (Magnier & Crié, 2015; Underwood, 2003). These include material type, shape, size, weight, and texture. They might be designed according to a functional goal (e.g. plastic openings on milk cartons for longer protection period) or for aesthetic reasons such as communicating brand personality (Steenis et al., 2017). A study by Magnier and Crié (2015) examined the reduction of structural elements (e.g. small packaging, no pre-packaged products), materials (e.g. recyclable materials, biodegradable materials) and the re-usability of the packaging; this falls within the topic of sustainable structure in packaging from a consumer perspective.

Secondly, graphical cues pertain to visuals such as colors, labels, colors, icons, and patterns (Magnier & Crié, 2015). They usually serve aesthetic purposes and communicate non-verbal information (Steenis et al., 2017). On sustainable packaging, graphical elements may be used to signal eco-friendliness (Pancer et al., 2015). For instance, the use of images of nature and the color green can be connected to sustainability.

Lastly, verbal or informational cues concern the information presented on packaging (Magnier & Crié, 2015; Steenis et al., 2017). They comprise of texts such as labelling, product description, brand names and marketing claims. They include textual information such as labelling, product description, brand names, and marketing claims. They are explicitly used to communicate sustainability, which influences consumers' perception of product's sustainability. For instance, sustainability beliefs can be formed through explicit sustainability information that might also imply other unobservable benefits such as environmental and social benefits of the product (Steenis, 2019). Moreover, the implicit information such as brand names can elicit memories of previous experiences with the product (Steenis, 2019).

Table 1 contains an overview of the categories of packaging cues. Note that the categories represent the most common cues in general since cues can be product- and packaging-specific.

Table 1 *Structural, graphical and verbal packaging design cues*

Category	Cues	Examples
Structural cues	Material	Type (cardboard, plastics, glass, etc.), amount of materials used, amount of material used
	Package type	Boxes, bottles, cans, pouches, etc.
	Shape	Cube, cylinder, cube, etc.
	Size	Surface area (e.g. width, length, height, diameter, radius)
	Opening and closure	Forward push-pull, screw cap, flip-top opening, cover (separate vs. connected), resealable lids
Graphical cues	Color	Color, saturation, brightness, hue, etc.
	Imagery	Images, photographs, illustrations
	Graphics	Non-imagery graphics such as lines, dots, and stripes
	Labels	Labels for branding, product, packaging, or sustainability
	Layout	Symmetry of visual cues and alignment (e.g. left or right, top or bottom, middle)
	Typography	Font type, size, width, weight
Verbal (Informational) cues	Names	Name of brand, product, producer, certification organization
	Product descriptions	Descriptions of product type, production process, product origin, flavor, etc.
	Marketing claims	Labels (e.g. “first”, “new”, “eco-friendly”, etc.) and slogans
	Pedagogical information	Educational content such as environmental issues, environmental claims, scientific attributes of sustainability, etc.
	Content information	Nutritional information, best by date, packaging material, product ingredients or contents
	Marking	Date and time of packaging, regulatory markings, country of origin information

Note. Adapted from *Consumer response to packaging design*, by N.D. Steenis, 2019, p. 10

Moreover, it must be noted that the aim of this thesis was not to explore all the sustainable packaging cues but rather to investigate emerging consumer perceptions. Therefore, this study did not examine sustainable cues individually. However, the understanding of sustainable packaging cues was useful as background information for the interview study and data analysis as they guided interviewees when examining milk packages and helped data analysis to be more systematic.

2.2.4 Consumer responses to sustainable packaging

According to Steenis et al. (2017), three streams of the research on sustainable packaging have been developed: (1) general consumer attitudinal models, (2) a holistic approach that investigates the packaging design as a totality, and (3) an analytical approach that examines consumer responses to particular packaging design cues.

In the first category, studies about models of consumer attitudes have revolved around consumers' general propensity to purchase eco-friendly packaging. They usually employ the theory of planned behavior (TPB), which examines the psychological factors behind consumer choices of packaging. These factors include personal norms, attitudes and environmental awareness and concerns (e.g. Van Birgelen et al., 2008; Koenig-Lewis et al., 2014; Martinho et al., 2015). However, this line of research is often limited in explaining how packaging design elements influence the environmental behaviors of consumers. Furthermore, the research on general consumer attitudes towards sustainable packaging often overlooks consumer perceptions of specific ecological cues.

Studies in the second line of research adopt a more holistic approach. They investigate packaging as a whole rather than consider its characteristics individually. Following a semiotics approach, most studies in this field concentrate on the meanings construed by consumers when perceiving packaging design (Magnier & Crié, 2015). Dano (1998, as cited in Magnier & Crié, 2015) claimed that packaging provides meanings to consumers, and its success depends on consumer expectations and personal values. More recently, Orth and Malkewitz, (2008) defined packaging as a holistic design composed of a blend of various elements with the intention of achieving a specific sensory effect, emphasizing that the holistic packaging should represent the brand's personality. In terms of sustainable packaging, the focus of these studies is how consumers perceive packaging as sustainable packaging based on the combined packaging design cues. The findings from this holistic approach suggest that the latter might signal packaging sustainability in various ways.

However, the research does not explain how specific cue provokes different consumer responses or interpretations. In addition, this area of sustainable packaging research often overlooks the different levels of consumer knowledge and interests, which might generate inconsistent consumer perceptions. For instance, Lindh et al. (2015) found that consumers do not typically perceive packaging in a holistic manner but rather spontaneously consider

packaging cues that are attractive or familiar to their everyday lives. As a result, environmental aspects such as recyclability receive more attention than others, including costs of production or transport (Steenis et al., 2017).

Finally, in the third category of studies, analytical research complements a holistic approach by independently considering packaging elements. The latter can be categorized as structural, graphical, and verbal cues (Magnier & Crié, 2015). In terms of structural cues, researchers have studied the impact of packaging shape on product preferences (Raghubir & Greenleaf, 2006; Yang & Raghubir, 2005), the influence of packaging size on product purchases (Estiri et al., 2010), and consumer responses to packaging materials (Venter et al., 2010). With regard to graphical elements, there have been studies on colors and labels (Magnier & Schoormans, 2015), the influence of packaging color on product positioning (Ampuero & Vila, 2006), product experience (Spence & Velasco, 2018; Becker et al., 2011), purchasing intention (Javed & Javed, 2015), and the beliefs and attitudes of consumers (Roullet & Droulers, 2005). In addition, there has been content analysis of packaging; Chrysochou and Festila (2019) found that packaging designs of organic product differed from those of other types of products in terms of materials, colors and images displayed on the package.

Nevertheless, most of the research in this area has focused on the impact of packaging cues on consumers using predominantly quantitative methods. Hence, it lacks an in-depth understanding of varying consumer perceptions of such cues, which is better obtained through qualitative research. Although Magnier and Crié (2015) classified consumer perceptions of sustainable packaging cues through interview studies, the topic has received little attention to date.

When considering the three areas of packaging research together, it would appear that previous research is limited in two ways. On the one hand, the literature suggests that consumer responses to packaging design are often spontaneous and limited to certain behaviors (e.g. product choice or purchasing intention), which lacks a holistic explanation of how ecological cues are variously interpreted by consumers. On the other hand, studies have mainly focused on the one-on-one relationship between package design itself (i.e. either holistic or analytical perspective) and consumers, especially focusing on the impact of packaging design for consumers. Considering that ecological cues are not designed and

placed on packaging without any intent or consideration, it is important to understand implicit assumptions present in the design of sustainable packaging. Understanding the fundamental assumptions and expectations embedded in given ecological cues would help researchers examine how consumers interpret these cues and perceive embedded meanings.

This thesis aims to broaden the sustainable package research by examining the assumptions ingrained in ecological packaging cues and how such cues are constructed by consumers. Consequently, this thesis is positioned at the intersection of the holistic and analytical streams of packaging research by not limiting consumer perception to certain viewpoint. By empirically studying consumer perceptions of green packaging elements, the present study aims to contribute to the understanding of sustainable packaging and sustainability marketing from the perspective of consumers.

To understand how consumers interpret ecological cues on packaging, it is first essential to examine how these cues are designed and the kinds of assumptions and expectations that are ingrained in them. The next section explains consumer responsabilization theory, which provides a framework for understanding the underlying design considerations in packaging.

2.3 Consumer responsabilization theory

Despite previous studies on consumer responses to sustainable packaging, there has been little research on the fundamental assumptions underlying ecological packaging design cues and the corresponding perception of such cues among consumers. Using the theory of consumer responsabilization as a foundation, this thesis aims to examine how consumers perceive the assumptions and expectations embedded in sustainable packaging design cues.

Three factors motivated the choice of consumer responsabilization theory. First, the theory provides a useful framework for a broad understanding of the rationale underlying sustainable packaging design and the relevant consumer perceptions of the ecological cues. Second, this theory brings a novel perspective to the packaging design research in that it posits that the assumptions and expectations of companies are manifested and communicated through packaging design elements. Lastly, consumer responsabilization

theory has received little attention within marketing literature despite its applicability to a variety of sustainability marketing channels. The following subsections outline the concept and process of consumer responsabilization and its implications for research on sustainable packaging design research.

2.3.1 Defining consumer responsabilization

Responsibility is defined as one's fundamental motivation to act on certain values with mere abidance by rule (Selznick, 2002). As inferred from the name itself, responsabilization is "the practical link that connects the ideal-typical scheme of governance to actual practices on the ground" (Shamir, 2008, p. 7). The theory fundamentally assumes and expects that social actors are capable of reflecting on their practices in accordance with morality. Applying the concept to a business context generates consumer responsabilization, in which the concept of "governance" translates to the sustainable strategy of companies and "actual practices" consist of the consumption of products from such companies. To wit, it can be said that companies assume consumers to have a moral capacity for environmental responsibility and expect them to choose products that demonstrate sustainable efforts, signaled for example through sustainable packaging. What, then, is a "responsible consumer?" It is important to appreciate this concept and how it is constructed in order to achieve a more comprehensive understanding of consumer responsabilization.

In line with the studies that profiled the green consumer (see 2.1.1), previous consumer research examined consumer responsibility in terms of its nature and meaning, followed by different labels of concepts such as ethical consumption (Harrison, et al., 2005), green consumer (Peattie, 2001), and sustainable consumption (Schaefer & Crane, 2005). Even if the concept of consumer responsibility was developed under many names, the studies share several assumptions that can be classified into two categories: consumer responsibility for socially desirable outcomes and identifiable consumer responsibility as a discrete market segment.

The first assumption is that consumers translate social and political considerations into individual consumer behavior (Harrison et al., 2005). For instance, consumers are concerned about various environment-related issues such as pollution and climate change, which are incorporated into consumption. Extending this premise, a number of studies on

consumer responsibility were based on the concept of the sovereign consumer, which views the consumer as an independent agent who yields positive societal impacts through consumptive behavior (Dixon, 1992). According to Dickinson and Hollander (1991), consumers cast a “vote” for positive social outcomes through their market choices.

The second assumption is that consumer responsibility can be objectively identified, and it exists “out there” as a discrete market segment. The research premised on this idea has investigated measurable qualities of responsible consumers such as the willingness to pay for ethical products (Auger et al., 2003) and the intensity of consumer concern and awareness of social and environmental issues (Shaw & Shiu, 2003). Accordingly, there have been studies about corporations that correspond to the demands of responsible consumers by “selling corporate social responsibility” (Cobb, 2002, as cited in Caruana & Crane, 2008, p. 1497). In this context, the role of a company, particularly its marketing process, is merely “to translate consumer demand into production” (Crane & Desmond, 2002, p. 548).

However, the conventional perspective explains little about how consumer responsibility is shaped and maintained in the market (Humphreys, 2010). Even if it touches upon the educational role of business through sustainability marketing communication, which focuses on building trust and facilitates changes in consumer understanding of market relations (McDonagh, 1998), the role of corporations in defining responsibility remains passive, merely acting as a transmitter of consumer choices. This begs the question: what is the role of corporations in shaping consumers as responsible market actors? To answer this, the role of corporate involvement in creating consumer responsibility must be examined.

2.3.2 Corporate involvement in the shaping of consumer responsibility

The increasing pressure for responsible market performance has pushed corporations to have more socio-moral obligations (De Winter, 2001). Consequently, a number of corporations have claimed social responsibility, spreading the ideas of “the moral corporation” (Zadek, 2001, as cited in Shamir, 2008, p. 9). This in turn motivates companies to conduct prolific sustainable activities as means to ensure their “corporate conscience” (Shamir, 2008, p. 2). However, societal pressure is not the only factor that leads to responsabilization among corporations. There is a more attractive motivation for

their socially responsible performance: generating and sustaining consumer responsibility within and around the market by pursuing commercial incentives.

The powerful justification for corporations to take moral responsibility is the commercial incentives, based on the belief that sustainability “is good for business and business is good for sustainable development” (Shamir, 2008, p. 11). Capturing the demand for moral practices in the market as a business opportunity, corporations have adopted social responsibility as a strategy to benefit the public interest (Shamir, 2008). Indeed, “doing the right thing has simply become the commercially wise thing to do” (Shamir, 2008, p. 12).

Driven by the commercial benefits, corporations have not been content to passively respond to market demands. Instead, they have proactively “created” consumer responsibility, especially through marketing practices. This viewpoint posits that the meaning of consumer responsibility is basically constructed in the market (Caruana & Crane, 2008) in line with a plethora of organizational research and consumer culture theory. Specifically, the notion of a “responsible consumer” is formed through predominant discourses derived from consumer culture or corporate marketing communications within the market (Caruana & Crane, 2008). Consequently, corporate communications signal the desirability of certain social practices, regardless of whether consumers fully accept them or not (Caruana & Crane, 2008). As corporations play a significant role in defining consumer responsibility, their newly discovered moral sensitivities are manifested specifically in marketing practices such as packaging design (Parket, 2002, as cited in Shamir, 2008). In this way, corporations have become involved in the process of shaping consumer responsibility.

This thesis highlights the role of corporations in creating consumer responsibility, as this viewpoint provides a basis for understanding how consumers perceive corporate intentions, which are implicitly embedded in packaging design. The next subsection further explains how specific types and patterns of the “intended message” from corporations are used to responsabilize consumers into making particular choices.

2.3.3 The PACT routine as a model of consumer responsabilization

Based on the premise that the responsible consumer can be “constructed,” Giesler and Veresiu (2014) theorized this process through a model of consumer responsabilization

named as the PACT routine. They adapted the research by Foucault (1978, 1979, 2008, as cited in Giesler & Veresiu, 2014), which described a fundamental shift of governance structure, from direct, top-down governance to indirect, market-based governance in which agents manifest their own ethical understanding of themselves. Accordingly, the model of consumer responsabilization is theorized in the form of a governmental process, including four distinct responsabilization processes: personalization, authorization, capabilization, and transformation. Through these processes, responsibility is transferred from corporations to newly formed responsible consumers (Giesler & Veresiu, 2014).

The development of the PACT routine was based on the neoliberal mythology that highlights the shared responsibility taken by individuals and the sociological inquiries on moralistic governance structures (Giesler & Veresiu, 2014). The theory about the mythology of shared responsibility posits a society of economically rational individual who must share social responsibility (Amable, 2011; Giesler & Veresiu, 2014). In the context of the marketplace, solutions to social problems are in the hands of morally responsible consumers, shifting responsibility away from corporations and reassigning it to individual consumers. In this context, moral guidelines negotiated in the “market of authorities” (Shamir, 2008, p. 6) support consumers’ freedom of choice (Giesler & Veresiu, 2014). With regard to moralistic governance regimes, the responsible individual is created through four different but interrelated processes, which form the basis of the PACT routine (e.g. Amable, 2011; Shamir, 2008, Giesler & Veresiu, 2014).

Based on the aforementioned theoretical background, the PACT routine (see Figure 1) theorizes how responsible consumer is formed through a governmental process (Giesler & Veresiu, 2014). The top level explains that economic elites are motivated to set into motion “moral reform process(es)” when tensions occur between opposing political structures in the course of discussing social problems (Giesler & Veresiu, 2014, p. 843). The processes are categorized into the four interrelated processes at the bottom level of the figure. Throughout the responsabilization processes, consumers eventually share the responsibility to solve the social problems. As the institutionalized consumer’s moral self-understanding constantly falters in the face of new social problems, the process of consumer responsabilization must accordingly operate in a continuous manner.

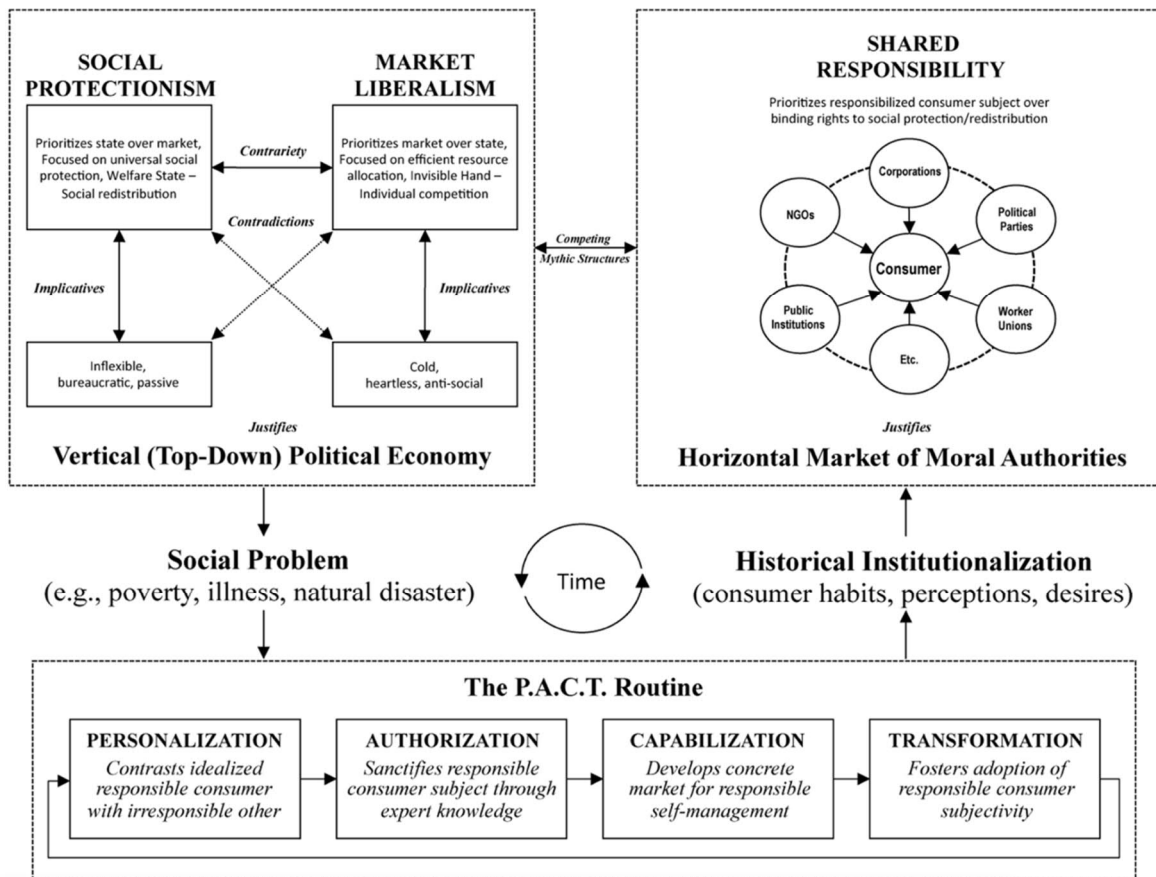


Figure 1 Consumer responsabilization as a governmental process (Giesler & Veresiu, 2014)

Specifically, the concept of the responsible consumer is constructed through the four types of processes of the PACT routine: personalization, authorization, capabilization, and transformation. Firstly, personalization reframes solutions to social problems as individuals' efforts to conduct a more responsible practices, turning the focus from protection by governing institutions (Giesler & Veresiu, 2014). This step is significant for consumer responsabilization, since redefining the subject of solving social problems requires individuals to act as responsible subjects. For example, Caruana and Crane (2008) investigated how the personalization process played out in a business context through the website for a sustainable travel company. In the case study, social responsibility for solving environmental problems was assigned to consumers. The authors emphasized that the term "responsible travel" implicitly constructed the idea that consumers considering travel products could either be responsible or irresponsible. This communication reframed the problem of tourism as a matter of consumer choice rather than tourism industry practices.

The second process, authorization, legitimizes and validates the redefined moralistic problem (Giesler & Veresiu, 2014). For instance, Giesler and Veresiu (2014) analyzed the message in the documentary by former US presidential candidate Al Gore, *An Inconvenient Truth* (2006), as a process of authorization. The core idea of the documentary was that climate change was not a matter of politics but a challenge that responsible individuals should shoulder by making responsible consumer choices. After the documentary received an Academy Award, it became a more powerful reference to legitimize and substantiate the redefined problem. Likewise, Hamann (2009) stated that knowledge from various disciplines could be used to justify and thus encourage the responsible self-conduct.

Thirdly, responsabilization requires capabilization, which creates the concrete infrastructure (e.g. product) that supports individuals to conduct desired responsible practices (e.g. sustainable product consumption) (Read, 2009; Giesler & Veresiu, 2014). Capabilization makes responsible consumption of moralized products and services materially possible. In the case study of Caruana and Crane (2008), for example, travel categories on the company's website ranged from eco-lodge stays to luxury breaks. The search engine supported consumers to search for particular types of responsible travel through the continuous visibility of links such as "carbon offsetting." The website itself as well as its technology acted as concrete material tools that consumers could use to realize their responsibility. Likewise, corporations create concrete market structures to support the green consumer and nurture their green consumption skills (Giesler & Veresiu, 2014).

The final process is called transformation, which entails actual behavioral change in individuals. Giesler and Veresiu (2014) illustrated this process as consumers who adopt a new technology or product, which leads to behavioral change. Stressing the role of the green market, which shifts consumer interests and desires toward the accomplishment of green goals (Read, 2009; Giesler & Veresiu, 2014), the transformation process encourages and ultimately fosters behavioral change among consumers.

2.3.4 Implications of consumer responsabilization for sustainable packaging design

The PACT routine provides a useful framework for analyzing the design elements of packaging as a means of consumer responsabilization. In terms of facilitating responsabilization processes, the role of economic elites in the study of Giesler and Veresiu

(2014) can be applied to the area of corporate marketing communications, since both share the same objectives (i.e., creating responsible consumers and encouraging their moral self-conduct). In the same way that tensions between opposing political perspectives on social problems might motivate elites to reponsibilize consumers, it can be said that corporations also undertake the responsabilization processes due to the tensions between social pressures and the pursuit of economic gain. In this context, a series of responsabilization processes operate through marketing communication channels, one of which is packaging design. Therefore, the theoretical framework of the PACT routine can explain the rationale behind ecological cues on packaging design.

However, the perspective of consumer responsabilization theory remains organizational and managerial in nature. Related studies have paid too much attention to the corporation's power deriving from its production of knowledge and have assumed that corporate marketing communications can construct consumer responsibility (Caruana & Crane, 2008). Furthermore, there has been little empirical research on consumer responsabilization theory in marketing, particularly with regard to packaging design. This raises questions about consumer perceptions of package design elements, where consumer responsabilization might be embedded:

What is the role of packaging design elements in the process of consumer responsabilization?

How do consumers construct meanings of an ecological nature through specific design cues in packaging design?

To answer these questions, this thesis critically assesses consumer responsabilization theory by examining how consumers perceive responsabilization processes that may be applied to packaging design elements (i.e. investigating whether consumers are actually responsabilized or interpret design elements in different ways).

2.4 Theoretical framework

Based on the previously established research questions and the extant literature review, Figure 2 presents the theoretical framework for this study. While the previous research on

consumer responsabilization has maintained a managerial perspective, this framework turns the focus to consumer perspective. The figure illustrates consumer perceptions of consumer responsabilization process manifested as ecological cues in packaging design.

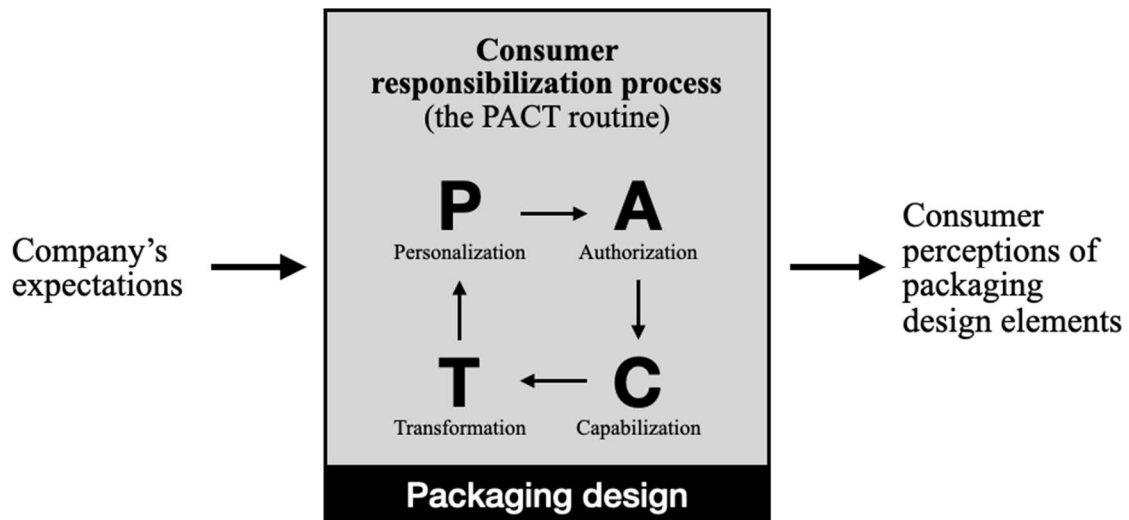


Figure 2 Theoretical framework of this thesis

Overall, many streams of research have studied packaging design in terms of its significant role in marketing communications (e.g. Silayoi & Speece, 2007; Rettie & Brewer, 2000). However, consumer perceptions of packaging design elements have received little attention. Specifically, sustainability marketing literature commonly examines the characteristics of green consumers (e.g. Peattie, 2010) or the temporal and emotional impact of ecological marketing communications (e.g. Antonetti & Maklan, 2014; Harth et al., 2013), rarely examining the cultural understanding of consumer responses to packaging design despite its crucial role in marketing.

In terms of the literature on packaging design, previous research has mainly investigated the packaging itself rather than the assumptions that underlie design decisions. Considering that the goal of packaging design is to deliver a certain message, there is further scope for valuable research on why and how certain ecological cues are presented in packaging and how their intention is perceived by consumers. Furthermore, previous studies have mainly focused on the immediate reactions of consumers to packaging design elements and

limited themselves to certain behaviors (e.g. product choice or purchasing intention) using quantitative research methods. Since consumers might interpret the ecological packaging cues in various ways and the meanings of such cues may be constructed by the influence of different social and cultural forces, it could be argued that qualitative methods could benefit packaging design studies.

In order to fill the identified research gaps, this thesis tests a new approach to packaging design research through the lens of consumer responsabilization theory, which provides a theoretical framework of this study. The central premise is that the meaning of consumer responsibility is constructed rather than existing “out there” in the market, and corporations can involve themselves in processes of meaning creation. However, this thesis does not adopt the consumer responsabilization model as it is but rather aims to critically assess the model from a consumer perspective. Highlighting the model’s organizational viewpoint, this thesis turns the lens of the model on consumer perceptions of responsabilization process. Moreover, this study also aims to contribute to the consumer responsabilization research by conducting empirical research in the context of packaging design used as a marketing tool, which has received no attention thus far.

3. Methodology

This chapter provides an overview of methodological considerations to clarify this study's research approach, data collection, data analysis, and trustworthiness. 3.1 explains the philosophical underpinnings of this thesis as well as the rationale for a qualitative research approach. The context of the present study is presented in 3.2, after which 3.3 and 3.4 demonstrate the steps of the data collection process. After that, 3.5 describes the iterative, six-phase inductive data analysis process. Lastly, 3.6 elaborates on the trustworthiness of the data analysis.

3.1 Research approach

Following the aim of this thesis—to understand consumer perception of ecological cues in milk packaging design—this thesis is an exploratory inquiry since perception of design elements is considered to be subjectively experienced and understood by the individual, depending on the context. Therefore, this thesis takes an interpretive and constructivist approach to the ontological assumption about the nature of reality. In other words, this thesis posits that reality is perceived and socially constructed by a variety of individuals and group perspectives, assuming there is no single and objective reality (Hudson & Ozanne, 1988). Existing reality—in this case, perception of packaging design—depends on the subjective and unique interpretations by individuals (Eriksson & Kovalainen, 2008).

The interpretive approach also takes a particularistic point of view to the epistemological underpinnings of this thesis (i.e. how the knowledge is generated with regard to knowledge that changes over time depending on the context) (Hudson & Ozanne, 1988; Morgan & Smircich, 1980). Moreover, this study aims to “develop patterns of meanings” (Creswell, 2003, p.3) based on the constructivist paradigm, in order to examine how particular meanings are constructed through individual experiences and reflections on those experiences (Honebein, 1996). Therefore, the present study seeks to uncover meanings, motives, and subjective experiences of individuals that are time- and context-specific (Hudson & Ozanne, 1988).

In accordance with the exploratory character of this study, qualitative research methods were considered appropriate for this study due to their flexibility and ability to adapt to

varying perceptions of packaging design elements (Eriksson & Kovalainen, 2008). Furthermore, a qualitative approach accommodates the probing of any spontaneous topics that may emerge as individuals reflect on their real-life experiences of phenomena, often complex and subjective (Yin, 2003; Hudson & Ozanne, 1988), which is a crucial element of this thesis.

3.2 Research context

The geographical context for this thesis is Finland since milk consumption is particularly significant there, and the evolution of packaging towards sustainability has been particularly conspicuous within the Finnish dairy industry. For example, large dairy firms such as Valio and Arla as well as a host of small players have explicitly manifested strategies for sustainability in their milk packaging. Moreover, this thesis focuses on perceptions of millennials aged 22 to 35 since they comprise the main customer base for sustainable products (Young, 2018).

The chosen study context benefits this thesis in at least two ways. First, participants who are used to Finnish milk as well as sustainability can provide rich explanations of individual experiences with ecological cues in packaging design. Second, Finnish milk packaging is relatively sophisticated in terms of sustainability and studying it is expected to provide new insights for the literature of both packaging and consumer research.

3.3 Methodological guidelines

The format of an interview study, specifically comprised of in-depth interviews, was chosen as a research method within the qualitative research tradition. In accordance with an interpretive and constructivist approach, individuals' unique experiences of milk packaging design elements in terms of ecological cues were of primary importance. This context-dependent form of explanation was labeled as "thick description" by Geertz (1973) and can be effectively collected through the in-depth interviews. By facilitating interviewees to describe not only their perception of design elements but also attitudes and behaviors inherent to the perception process (Thompson et al., 1989), the in-depth interviews enabled this study to collect fruitful data.

Moreover, this thesis employed elicitation technique (Johnson & Weller, 2002), which uses visual stimuli to more effectively facilitate interviewees to reveal what they know, feel, think, or believe. To cover as many visual elements as possible, milk packages were analytically assessed in terms of graphical, verbal, and structural design elements. As a result, five milk packages containing the same type of milk but featuring different design elements were selected as visual stimuli for the interview study (see Figure 3).



Figure 3 Five milk packages used for elicitation technique (From left: Arla luomu kevytmaito, Pirkka luomu kevytmaito, Valio vapaan lehmän ykkösmaito, Juustoportti vapaan lehmän kevytmaito, Valio luomu kevytmaito)

Interviewees were recruited through a combination of purposeful and opportunistic sampling. Participants ranged from 25 to 32 years of age and were recruited in Finland according to the context of this study. Specifically, there were three interview selection criteria: (1) participants had to be either Finnish or foreigners who had resided in Finland for at least four years, (2) participants had to have a design background or at least some form of experience with visual design, and (3) participants had to be unfamiliar with the research topic—exploring consumer perception of milk packaging design—before the interviews.

The reason for the first criterion was to ensure that all the participants had a sufficient understanding of Finland's unique milk culture and brands. As for the second criterion, participants with design acumen were expected to provide more ample elaboration on their personal experiences with the visual elements of packaging. The third criterion was to ensure that the participants would not feel as though the researcher was testing them but rather adopting the position of wanting to learn from them (Johnson & Weller, 2002). Following the criteria, 12 participants were chosen for the in-depth interviews (see Table 2). In terms of sample size, 12 is deemed to be an appropriate number for a medium project such as a Master's thesis (Clarke et al., 2015).

In order to ensure topical coherence and increase the reliability of findings, an interview guide was developed and refined before and after each interview (Boyce & Neale, 2006) by making small tweaks depending on what worked and did not work. The contents of the interview guide consisted of what the researcher should say and do when setting up the interview, beginning the interview, conducting the interview, concluding the interview, and following the interview (see Appendix 1). The questions were designed to be open-ended rather than close-ended, with pertinent probes that could be used during the interview (Boyce & Neale, 2006).

Table 2 *Interview participants*

No.	Name	Job	Age	Gender	Location	Nationality	Interview length (min)
1	Hanna	Visual designer at a software company	31	Female	Finland	Korean Resident in Finland for four years	68
2	James	Freelancer graphic designer	25	Male	Finland	Finnish	70
3	Marla	Product marketer at an electrical equipment company	32	Female	Finland	Korean Resident in Finland for four years	52
4	Ava	Master's degree student majoring in fashion design	31	Female	Finland	Korean Resident in Finland for four years	36
5	Zoe	Service designer at a transportation company	25	Female	Finland	Finnish	50
6	Ethan	Concept designer at a residential development company	28	Male	Finland	Finnish	73
7	Noah	Strategist at a branding agency	28	Male	Finland	Finnish	55
8	Mia	PhD candidate at a business school with a bachelor's degree in fashion design	28	Female	Finland	Korean Resident in Finland for five years	53
9	Sophia	User experience designer at an IT consultancy	32	Female	Finland	Korean Resident in Finland for six years	51
10	Riley	Manager of a creative studio	27	Female	Finland	Korean Resident in Finland for nine years	80
11	Dave	Photographer	32	Male	Finland	Finnish	73
12	Emily	Controller at a food company	29	Female	Finland	Finnish	73

Note. Names are pseudonyms.

3.4 Data collection

The main data collection method used in this study was an in-depth interview that aimed to explore the emergent themes or topics relative to an individual's experience with milk packaging. Using elicitation technique with the five examples of milk packaging as visual stimuli, each participant was encouraged to freely touch, feel, and examine the packages more closely during each one-on-one interview (see Figure 4).



Figure 4 Use of milk packages as visual stimuli during in-depth interview

Twelve interviews were conducted from January 28 to March 26, 2020. Eleven interviews were held in person and the five milk cartons were brought as visual stimuli. The last interview was conducted over Zoom, an online meeting tool, due to the exceptional circumstances surrounding the COVID-19 epidemic. Photos of each side of the cartons were sent to the last participant before the interview to give her sufficient time to examine the design elements. The interview data was collected in the form of audio phone recordings and memos in English, while the fourth interview was held in Korean. During the interviews, ethnographic and hermeneutic research methods were used—for instance,

the researcher of this thesis observed participants' nonverbal expressions and interpreted meanings of what they said—to obtain the most precise understanding of participants' experiences of ecological cues in milk packaging (Eriksson & Kovalainen, 2008). The researcher's observations were recorded as written notes. Interviews were transcribed verbatim for analysis within 36 hours after each interview to ensure the reliability of the data. In total, 182 pages of transcripts (12pt, 1.5 line spacing) were obtained from 12 interviews with a runtime of 734 minutes.

3.5 Thematic data analysis

Thematic analysis was chosen as a data analysis method to accomplish the purpose of this thesis—understanding the meanings of packaging design elements created by consumers—by identifying and analyzing patterns of meanings across qualitative data (Clarke et al., 2015). Specifically, the present study followed the six-phase process of thematic analysis suggested by Clarke et al. (2015) and used coding methods drawn from Saldaña's coding manual (2012). Each step of the analysis is with explanation and examples in following sections in order to ensure the credibility and transparency of the analysis.

3.5.1 Familiarizing with the data and identifying items of potential interest

The first step of the data analysis was to fully understand the content of the dataset by reading and re-reading word-for-word transcripts and listening to every interview. The field notes containing observations and initial interpretations of meanings were also re-examined and matched with the corresponding transcript. Engaging with both forms of data helped the researcher of this thesis achieve an in-depth understanding of the interviews. Then, the text from transcripts was parsed into short paragraphs, with breaks corresponding to apparent changes in topic; this organization of the layout was intended to streamline the upcoming data analysis process. Lastly, interesting points of data that were in relation to the research questions were identified and written down.

3.5.2 Generating initial codes

The second step of the thematic analysis was coding the data in systemic way to produce initial codes. A code is a construct generated by the researcher and used to find patterns in the subsequent analysis phases (Saldaña, 2012). From the data, participant-generated

activities, emotions, and perceptions as well as researcher-interpreted data in the form of analytic field notes were used for coding. Using ATLAS.ti software, the descriptive coding method was employed to analyze the transcribed interviews. Prioritizing the meanings presented in the data (Clarke et al., 2015), main topics of the excerpts were summarized as descriptive codes (Saldaña, 2012). The first set of codes consisted of 463 different meanings created by participants. While keeping in mind the relevance of each code to the research question, the initial codes were refined by checking repetitions across interviews, original typologies, metaphors, or analogies elaborated by participants. As a result, the first round of analysis ended with 463 initial codes which were further classified into 86 coding groups (see Appendix 2). Based on these groups, the first candidate key topics and findings were formed to conceptualize how meanings of an ecological nature were communicated through specific design cues in milk packaging.

3.5.3 Developing themes

In the third step, broader patterns of meaning were examined across the initial codes. Themes comprised clusters of similar codes or representative theme that could embrace large and complex codes (Charmaz, 2006). Special attention was given to making themes form an analytic narrative (Braun & Clarke, 2012), while also ensuring that they were self-representative and distinctive. To focus on answering the research question, themes loosely followed the theoretical framework derived from the literature of consumer responsabilization and packaging design. As a result, some codes and related themes were inevitably discarded since they did not fit a coherent narrative. This phase ended with a set of 12 candidate themes and 36 sub-themes.

3.5.4 Reviewing potential themes

The candidate themes and sub-themes with relevant codes were iteratively reviewed on two levels: (1) checking whether each theme and sub-theme captured the most significant features of codes relevant to the research questions, and (2) checking whether each theme worked in relation to the entire dataset. Specifically, this phase ensured the coherence of each theme as well as the existence of clear boundaries between them. The candidate themes were iteratively reviewed and analyzed multiple times by both the researcher of this thesis and her thesis advisor in order to ensure that the final themes, sub-themes, and codes accurately represented the collected data. As a result, some themes took new forms,

some codes were recoded, and some analytical entities were eliminated entirely due to redundancy following recommendations in Saldaña's guide (2012, p. 24), which suggests that "the final number of major themes or concepts should be held to a minimum to keep the analysis coherent."

After these iterations, eight main themes and nineteen sub-themes were identified, and each sub-theme was connected to only one of the main themes. The main themes were further organized into two main categories according to consumer responsabilization routine and consumer culture in order to analyze the data more precisely and provide more coherent "analytic story". The themes under the category of consumer responsabilization were further classified into four phases of the PACT routine (see Table 3).

Table 3 *Final identification of main themes and sub-themes*

Category	Sub-category	Theme	Sub-themes
Consumer responsabilization	Personalization	Taking ecological problems personally	Awareness of the lack of knowledge about ecological issues
			Emotions elicited by imageries
	Authorization	Trust in authorized information on packaging	Trust in certificate
			Trust in information on packaging regardless of the fact
			Trust in Finnish origin
	Opposition to authorization	Distrust in information on packaging	Animosity towards greenwashing
			Distrust in authorization
			Distrust in public opinions
			Request for more evidence on eco-friendliness of product and packaging
	Capabilization	Enabling responsible consumption through packaging design	Green consumption as a basic step for sustainability
			Packaging design as an enabler of green consumption
	Transformation	Seeking methods for eco-friendly behaviors	Searching for more information through packaging
Trying new things as a start of behavioral change			
Consumer culture	Popular culture as a desired lifestyle		Cool-looking design elements reminding hipster
			Desired modern ecological way of life
	Materialism		Purchasing eco-friendly product for satiating self-interest rather than for fulfilling social responsibility
			Eco-friendly consumption for satisfying the desire for material goods
			Appreciation of companies' investment in product eco-friendliness
	Finnish milk culture		High milk consumption and affection for Finnish brands
			Changing milk consumption behaviors in different social groups

3.5.5 Defining and naming themes

In the fifth phase, the final form of the data analysis was structured and relevant data excerpts were selected. The focus was on clearly addressing the research questions with each theme. Special attention was paid to demonstrating a conceptually rich interpretative story consisting of the meanings implicit in and beyond the surface of the data. In addition, this stage ended with the naming of each theme, sub-theme, and code. Aiming to make names both informative and engaging, this phase focused on the readability and clarity of all thematic components to laypeople and the coherence of themes in terms of conveying core interpretations from the extracted data. This process was iteratively carried out throughout the entirety of the analysis. Figure 5 shows the final mapping of the main themes in the form of a thematic map.

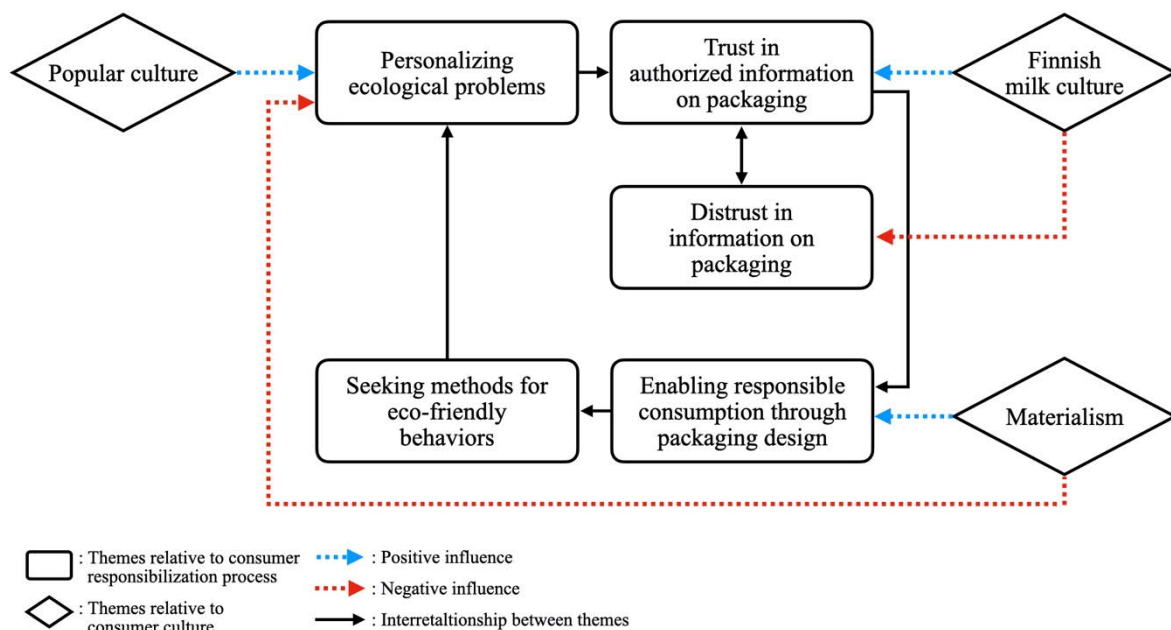


Figure 5 Thematic mapping of main themes

3.5.6 Producing the report

The last phase consisted of refining the data analysis. Based on the research goal and the research questions, chapter 4 details and discusses the main findings. After that, chapter 5 discusses the implications of the findings in relation to the extant literature. Specific data excerpts, including the complete quote tables relevant to findings, can be found in Appendix 3.

3.6 Trustworthiness of the data analysis

Evaluation of this study's trustworthiness was based on the four criteria: credibility, transferability, dependability, and confirmability (Guba & Lincoln, 1989). By fulfilling the criteria, a study gains usefulness and acceptability to a variety of disciplines (Nowell et al., 2017). The following paragraphs briefly describe how this thesis fulfilled the trustworthiness criteria of data analysis.

Firstly, the credibility of this thesis was ensured through multiple checks of the interview procedure and initial findings with multiple experts including the researcher's thesis advisor, a packaging design research expert, and two lecturers of qualitative business research methods. As a result, the data analysis was iteratively examined and refined to match participants' views and the researcher's interpretation of them to the fullest (Tobin & Begley, 2004), supported by numerous external checks.

In terms of transferability, the findings could be applied to a similar context as the one in which this thesis took place, such as a study that focuses on millennial consumers in Scandinavian countries with a similar milk culture as Finland. For instance, the purposive sampling described in this study can serve as a guide for researchers or business practitioners who seek to transfer the findings of this thesis to relevant sites. Moreover, the thick descriptions contained in this thesis can also help them evaluate the transferability of the findings (Guba & Lincoln, 1989).

Next, the dependability of the data analysis was preserved by reporting the research process in detailed, logical, and open manner. Koch (1994) suggested creating a clear audit trail of the process; this thesis provides supporting evidence for decisions and describes the rationale behind them in theoretical and methodological terms throughout the study. For example, collected raw data in the form of audio records and transcripts with field notes were systematically kept, analyzed, and presented using a step-by-step approach with a reflexive manner in the thematic analysis.

Lastly, the confirmability of this thesis was established by achieving the three criteria—credibility, transferability, and dependability (Guba & Lincoln, 1989)—and clearly demonstrating how the findings stemmed from the collected data and the research

conclusions were reached (Tobin & Begley, 2004). Constant self-critical revision and reflection about the research purposes and continuous researcher triangulation—multiple checks of data analysis process by the researcher of this study and other experts—enhanced the confirmability of this thesis. Overall, the four criteria have been fulfilled throughout this study.

4. Findings

This chapter presents this study's empirical findings in four parts that are patterned after the consumer responsabilization process and relevant cultural factors that influence the process. Refining the thematic map (see Figure 5), the final form of map is figuratively represented in Figure 6, which guides the following sections. At the beginning of each section, the thematic map is zoomed into the specific topic of the section, showing a more detailed relationship between the themes. The following sections elaborate on the themes and relevant sub-themes accompanied by relevant quotes. The collation of data excerpts can be found in Appendix 3.

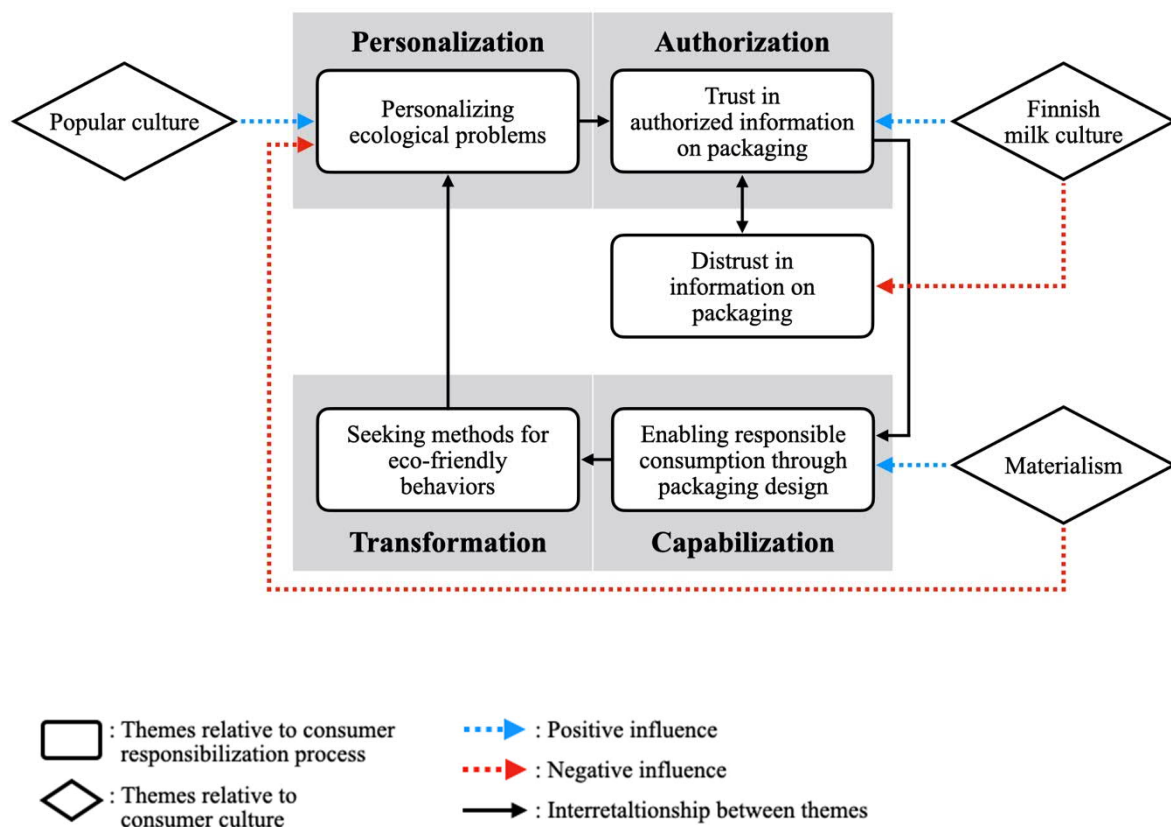


Figure 6 Participants' perceptions of packaging design relative to consumer responsabilization process and consumer culture

By examining the findings relative to the four phases of the consumer responsabilization process, the present chapter answers the following research question: "What is the role of individual packaging design elements in the process of consumer responsabilization?"

Moreover, the next sections also describe distinctive, consumer-generated meanings of ecological cues in milk packaging to answer the second sub-research question, “How do consumers construct meanings of an ecological nature through specific design cues in milk packaging?” Combining the findings, the central research question—“Can packaging design function as an ecological cue to guide consumer perception?”—is answered in the final part of this chapter.

4.1 The personalization phase

Packaging design elements stimulated participants to develop a sense of conscience related to ecological problems, following the personalization phase of the consumer responsabilization process. Such interpretation of design elements was reinforced by a positive image of popular culture such as hipster culture. However, the opposing interpretation was also illustrated by participants’ answers. Participants who held this viewpoint argued that sustainable consumption is merely a means of fulfilling self-interest rather than benefiting society. Figure 7 demonstrates the different interpretations of ecological cues on packaging in terms of the personalization phase. The following subsections outline how personalization is perceived through packaging design. First, 4.1.1 illustrates findings in light of the personalization phase. Second, 4.1.2 describes how popular culture can reinforce the personalization phase. Lastly, 4.1.3. describes the opposing view that prioritizes personal interest over social responsibility.

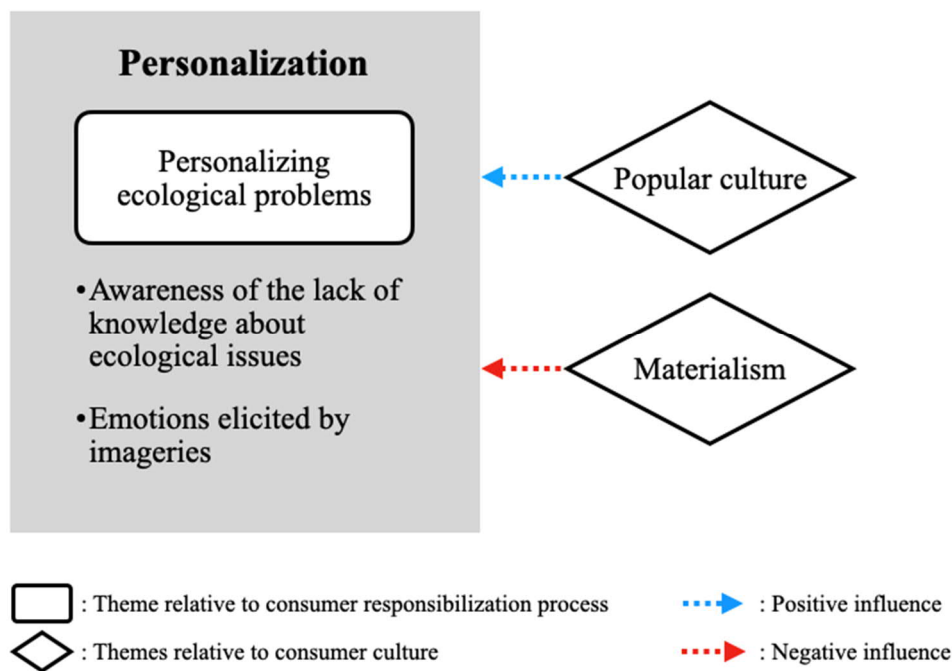


Figure 7 Participants' perceptions of packaging design relative to the personalization phase and relevant consumer culture

4.1.1 Personalizing ecological problems

Findings of this study show that participants took ecological problems personally in two ways: by realizing their deficient knowledge about ecological issues and by feeling emotions from visual design elements. Firstly, it was noticeable that interview participants became aware of their lack of knowledge about sustainability by perceiving ecological cues of packaging design. The lack of knowledge led to a process of “personalizing” the ecological issues and participants regarded the acquisition of more knowledge on such issues as personal responsibility. This response was different from the emotional response in that it was not spontaneously and temporarily provoked by packaging design. Rather, it was a long-established feeling that emerged in the course of participants recognizing themselves as the actors who needed to learn more about solving social problems. For example, two of the participants showed that they did not have enough knowledge on sustainability:

“I don’t really know and I haven’t researched on milk industry, so I don’t really know what kind of criteria they should meet to get the luomu [organic] certificate. But just seeing that it’s organic just gives me feeling that maybe (...) It’s better than not organic ones. (...) I don’t know if it’s better for me or better for the cows, or better for the environment, though. I don’t really know exactly what it means to have organic mark, but it just feels that it’s better.” (Riley)

“You know how much they [milk companies] can play out [manipulate us] and you never know how they treat animals and what we eat and what is the standard. I don’t have any knowledge in that area, so I don’t want to judge based on their own [marketing] claim, like ‘We’re eco-friendly’.” (Marla)

The multiple uses of “I don’t know” shows that participants regarded the knowledge acquisition about sustainability to be their personal responsibility. When the participants saw the information on the packages, they confronted the possible negative environmental consequences of their lack of knowledge. This perception was resulted in cognitive dissonance, which produces a mental discomfort due to conflicting beliefs and behaviors. Since they simply did not like seeing themselves as ignorant consumers, the dissonance had to be resolved by showing interest in learning more about the subject matter.

It is interesting that Riley and Marla showed divergent responses towards the information on the packages even if they shared the same awareness of their deficient knowledge. While Riley depended on the authorized information on the package to complement her lack of knowledge, Marla did not want to allow her ignorance to make her vulnerable to manipulation by marketing claims. Different responses to the packaging information are more extensively reviewed in 4.2.

Secondly, both positive and negative emotions elicited by features of the imagery on the packages played a significant role in provoking a sense of responsibility in participants. In terms of positive feelings, images of cows roaming around the field evoked favorable feelings about milk consumption in participants:

“Cows seemingly happy and free in the field, which might trigger [good] emotions from you, thinking about the happy cows.” (Ethan)

“I think they [the cow images] want to say that you can drink milk with happy mind. You don’t need to worry about cows.” (Noah)

As illustrated by Ethan and Noah, milk can be consumed with a “happy mind” due to the cows’ perceived happiness, which makes participants personally invested in the welfare of the animals.

However, an uncomfortable feeling was also captured by the empirical data in three ways due to the concerns about harming cows in three ways. Firstly, the images of cows reminded participants of meat, which cows are routinely killed for. Secondly, participants were concerned about the feeding environment of cows due to the state of animal welfare in the industry. This viewpoint consequently led to distrust in the product and the brand during the authorization phase. Thirdly, cows that looked too young reminded participants of depriving calves of milk. Overall, the cow images made participants sympathize with the cattle and personalize sustainability issues related to animal welfare, as described by Riley:

“I feel uncomfortable to see cows [on package]. It’s like buying beef with cow picture on it [the package]. (...) Because that reminds me killing cow (...) Similarly, I don’t like this real cow pictures on the packaging.” (Riley)

Meanwhile, the hand-drawn style of cow illustrations offset the uncomfortable feelings elicited by the actual pictures of cows (see Figure 8). This shows that an illustrative style in packaging design can influence consumers’ feelings even if the object (i.e. cows as milk producers) remains the same:

“This one [Arla Luomu] looks pretty neutral. You don’t see the cow directly because cow image is pen-drawn. To me, this one is just neutral enough and doesn’t remind me real cows.” (Dave)

“This kind of line graphic make me feel it’s not industrial and factory-made, flashy.” (Zoe)



Figure 8 Hand-drawn image of cow on packaging

4.1.2 Supporting cultural factors for personalization

Throughout the interviews, brown-colored paper-like material, hand-drawn fonts and rugged package surface were associated with aspects of popular culture such as hipster culture, reinforcing the personalization of the environmental problems. The hipster culture was especially interpreted as a particular lifestyle mold that enabled social responsibility and, simultaneously, a “cool” way of life.

Participants used the hipster culture as a cultural reference in two ways. On the one hand, the contrast between hipsters and themselves soothed the feelings of guilt that arise from lack of knowledge about sustainability issues. On the other hand, participants were encouraged to follow such desirable lifestyle by packaging design elements:

“I think there are so many hipster-ish culture as a background (of sustainable products). They’re really related to sustainability. It’s kind of cool stuff.” (Marla)

“[Hipsters are] sustainable. (...) They're really conscious about what they buy. They think that every purchasing decision for them is an opportunity to use their power to contribute to the direction they want to go to. They love nature, they're fighting against global warming, (...) [They're] really conscious about animal health, nature. (...) They don't really go for the fast fashion when they consume food. (...) They're ready to go to the extremes to kind of like to follow their own values and own views of the world.” (Emily)

As described by Marla, sustainable products in general were perceived as sustainable and cool. Emily illustrated what hipster culture means for her in detail. The ecological cues of packaging design reminded Emily of hipsters who lived a sustainable life and were aggressive in the pursuit of their values. Both of Marla and Emily used “they” a great deal when describing hipsters, positioning the culture outside of their own identity, which might indulge their insufficient knowledge about ecological issues. At the same time, they revealed their desirability of hipster culture by expressing considerable appreciation of its perceived ecological and cool lifestyle.

4.1.3 Opposing cultural factors for personalization

Contrary to the viewpoint that environmental problems can be personalized towards self-responsibility, the pursuit of personal benefits was an important motivation for participants to consume ecological products. The most prominent perceived benefit that emerged during the interviews was personal health. The following excerpts address how participants were motivated to consume organic products:

“I think the reason for that [ecological consumption] is more about health issues rather than motivation to being sustainable for the nature. (...) I think I make healthier decision for myself. For me, it's kind of long-term investment for my health in the future. (...) For me, buying organic is more like selfish choice for my health.” (Mia)

“I think it's [the sustainability of milk production is the] same as the chicken. When they are treated very badly in their lives, then they're probably producing bad quality milk or eggs. So, that's what I think basically when I choose milk. I'm thinking whether this milk is from happy cow... freely moving around grass...”

Actually, moving freely is not necessary but I'd prefer milk from cows which are treated better than other cows who probably eat very shitty stuff." (Sophia)

Both Mia and Sophia prioritized a healthy lifestyle. They made a 'selfish choice' for their health rather than for an altruistic purpose. Particularly, Sophia regarded the welfare of cow as guaranteeing the quality of milk for her health, rather than for the good of the cows themselves, which contradicts with the personalization of the sustainable problems by sympathizing with the cows' pain. Thus, for these kinds of consumers, it is difficult to expect or assume that they will take the societal problems or sustainable claims presented on the packaging personally.

In terms of design elements, the visual and verbal representations of "organic (*luomu* in Finnish)" and animal welfare were regarded as significant cues for the participants who were motivated by personal benefits. It is especially interesting to note animal welfare, normally interpreted as an ethical issue, can be perceived as an ecological cue associated with personal health.

4.2 The authorization phase

The authorization phase was a battlefield where two opposing perceptions clashed over the information presented on milk packaging. Firstly, 4.2.1 explains how participants perceived the trustworthiness of the information on the packaging. Then, 4.2.2 illustrates a strong distrust in the information on packages, expressed as an animosity towards greenwashing, distrust in the authorization itself, and skepticism on public norms related to milk, with a demand for more evidence on the eco-friendliness claims argued by corporations. In addition, the perceptions of participants were positively or negatively influenced by context-specific milk culture, elaborated in 4.2.3. Figure 9 represents the opposing viewpoints with relevant sub-themes and the influence of cultural factors on participants' perceptions.

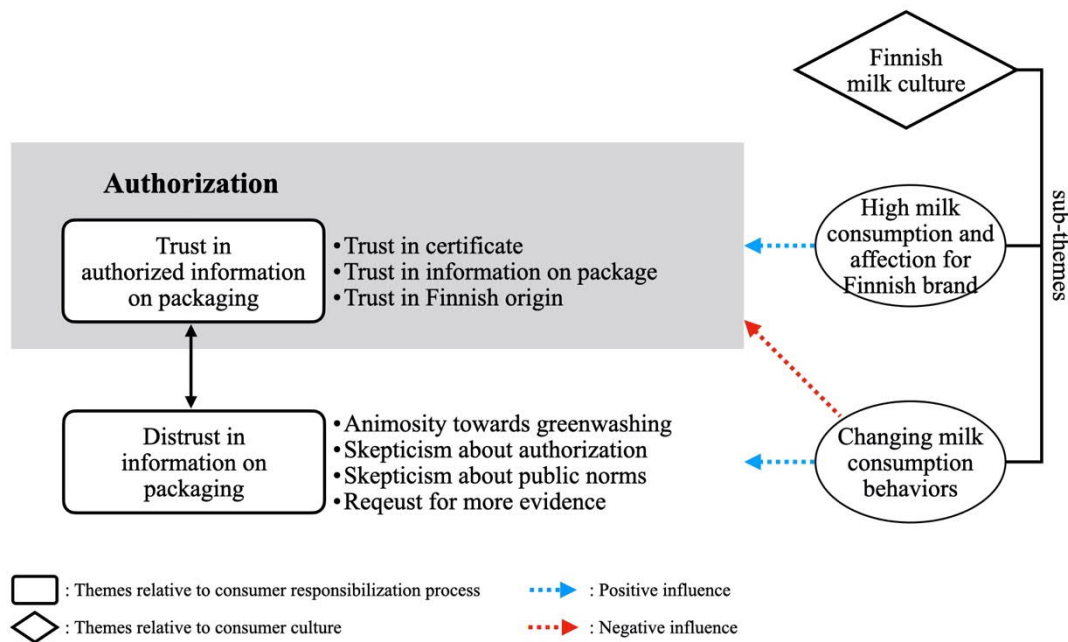


Figure 9 Participants' perceptions of packaging design relative to the authorization phase and relevant consumer culture

4.2.1 Trust in authorized information on packaging

The visual and verbal design elements of packaging played a significant role as ecological cues to create trust within participants. They were considered to be the authorized information that substantiated the consumer responsibility (Giesler & Veresiu, 2014), justifying and encouraging the responsible consumption (Hamann, 2009). In this study, the identified cues can be classified into three categories: certificates as officially authorized information, information presented on packaging, and indication of Finnish origin.

Firstly, certificates or marks that combine visuals and texts were perceived as the most significant indicator of credibility. Participants who acknowledged their deficient knowledge about sustainability issues tended to depend on the certificates, assuming that certified products would have undergone complex and meticulous processes. As Hamann (2009) argued that the knowledge from a variety of disciplines increased the credibility of information, certificates acted as a trustworthy information verified by various disciplines such as institutions that deal with animal welfare, recycling, or carbon footprints. Thus, even consumers who doubt the company's sustainability marketing regarded the

certificates as the most trustworthy factor that ultimately confirmed the eco-friendliness of the product, as described by James:

“Those kinds of marks and such make it clearer to confirm the notion that it’s not just branding. They kind of confirm the eco-friendliness of product. I think other design elements are kind of things that the marketers want you to see. But these certificates act as evidence, saying this product is ‘really eco-friendly.’” (James)

Among the different types of certificates, the organic mark (*luomu*) was the most powerful indicator of credibility. Noticeable indications of “organic” with the use of large font or different colors created trust within participants. For example, Ethan, a self-described skeptical consumer, stated that the only information he could trust was the organic mark. It was only after establishing the initial trust through the *luomu* mark that Ethan found it possible to conduct the further research about the product:

“Even if many products are saying they’re ecological, I don’t have much trust in it. However, at least the company cannot use the ecological words like *luomu* unless they go through all the requirements that the company should follow. So, (...) I’d say that the product with those words might be more ecological.” (Ethan)

Secondly, the information on the packages was considered to be reliable, without any doubts about its factual accuracy. Participants perceived the information, mostly verbally presented on the packages, as a reference for validating and motivating eco-friendly consumption. The level of trust tended to increase according to the amount of information presented.

In this case, the company became the most powerful authority for legitimizing the information on the packaging. For example, Mia illustrated her belief that companies do not provide false information, evaluating their claims as more trustworthy than other types of information:

“Thinking about the package, when the companies write about the product, they wouldn’t lie about the information. I’d trust the texts on the package rather than some random posts on the Internet.” (Mia)

In addition, it is noteworthy that some participants expressed a “want” to believe the information even if they did not trust all of it. Emily demonstrated the power of information on packaging. She easily depended on the information even if she acknowledged that the information is possibly deceptive:

“I trust pretty easily these kinds of things [certificates and verbal information about sustainable features such as organic claims]. (...) When I read this, then I just think 'OK, this is good and I'm going to buy it.' That's like... great even if I don't know whether that's true or not. And the company could have said anything, though. Those kinds of things really give you more trustworthiness towards the product, I guess.” (Emily)

In terms of the type of information, text was considered more important than graphics. Hence, participants tended to regard the amount of information on packaging as proportional to its trustworthiness. Moreover, credibility of information decreased when participants perceived that the text did not support the graphics.

Lastly, it was distinctive that participants perceived a product’s Finnish origin as a factor for validating its eco-friendliness and quality. Three aspects justified trust in Finnish products: sustainability, regulation, and product quality. First, participants commonly regarded Finnish products as eco-friendly especially due to the short length of supply chain from farms to the retail stores. Second, Finnish regulations for food products were considered to be relatively strict compared to other countries, ensuring the product’s eco-friendliness. Lastly, participants recognized the quality of Finnish products in terms of their freshness and safety. The indication of Finnish origin was commonly presented through words such as *Suomalainen* [Finnish] and *Suomesta* [made in Finland], certificates labeled “made in Finland,” and visuals that indicated Finnishness such as used of the color blue and birch-tree patterns:

“I fairly trust Finnish products. (...) Then my job is just to trust them and support those companies or products.” (Dave)

“[The packaging for a brand] Pirkka luomu also has the “made in Finland, *Suomesta*” but the reason might be the brand is regarded cheap brand, so people might be suspicious about the ingredients.” (Noah)

In particular, Finnish milk packages were also considered to be eco-friendly, compared to those manufactured in other countries. Participants indicated that they regarded the reduced use of plastic and avoidance of over-packaging as ecological aspects of Finnish milk packaging. Furthermore, they perceived their organic aspect to be more emphasized in the packaging rather than in the brand name, which made the packages look more eco-friendly. Sophia highlighted the ecological aspects of Finnish packaging by contrasting it with its Korean counterparts:

“You can see only paper milk packages [in Finland]. But in Korea, I used to see products which consist of two milk packages put in a plastic bag. I really don’t like that kind of package. Here [in Finland], I think the packages are more sustainable or there are more regulations about sustainability.” (Sophia)

This trust in Finnish products and packaging is generally part of the unique Finnish milk culture that influenced the participants’ experiences with milk packaging. The Finnish milk culture is explained in more detail in 4.2.3.

4.2.2 Distrust in information on packaging

In sharp contrast to participants who expressed strong trust in authorized information, a number of interviewees demonstrated distrust towards such information. In this case, participants became skeptical of information on packaging when validating the eco-friendliness of the product. Thus, they harkened back to the knowledge or experience that they acquired before examining the information on the milk packages. For instance, news articles, documentaries, and books were used to evaluate the information presented on the packaging. When this pre-acquired knowledge collided with the information on the packages, participants tended to rely more on their existing knowledge, resulting in the increased distrust of the information on the packages. The form of distrust can be classified into four types: animosity towards greenwashing, distrust in authorization, skepticism on public opinions about milk, and call for more evidence concerning the information on the packages.

Firstly, participants expressed skepticism on corporations’ claims about sustainability and animosity towards greenwashing. Before undertaking a more detailed explanation, this point can be demonstrated through an anecdote told by Emily. The following story

foreshadows various factors that establish distrust in companies' marketing claims, which were also described by other participants:

Emily: [Let's see] what is said on the left side of Arla luomu, that's only words. Anyone can say anything about their product, but you don't really know what it actually is and (...) whether it's even true because there's no evidence and it's like marketing. Even though it's marketing, people can easily be fooled just because they think it supposed to be organic and sustainable, so you feel that this company wants to be trustworthy (...) So, you don't question what they're saying. I think my company is using that. For example, we're selling a drink, called "Honest". (...) It's kind of a label the product has there. And people just buy it a lot. A lot! Only because it says "Honest" and it looks trustworthy. (...) You know what? I heard that it's actually one of Coca-Cola's brands. When I heard that, (...) I got different feelings, all of a sudden. (...) Like you're not trusting them (the manufacturer) anymore. You're not trusting the product that much anymore. (...) It's funny how even one word can be so powerful.

Interviewer: There's no ecological factor there? Just the name sounds credible?

Emily: No, it's full of sugar! It's like drinking Coca-Cola. Not exactly like that but it still feels like... not 'Honest' product. Or being sustainable or something.

Interviewer: OK. You said that it's really easy to fool people with some words seemingly ecological. Can you explain more?

Emily: Especially, with this topic, sustainability, [people are easily fooled]. I think when you talk about organic or sustainable or whatever, people don't really question much what is offered to them. If there's the sign of organic or locally produced, people just think 'OK, yes, it's great. Let's take this.' (...) People got fooled pretty easily. The company started to realize that they need to start using it.

This exchange with Emily contains various points of distrust that were also commonly noted by other participants. Firstly, they perceived sustainability as merely a trend that companies followed. The expression “using it” above shows that sustainability marketing claims were merely perceived as a marketing tool, not evidence of a company's sincere, actual efforts. Ethan also provided an acerbic criticism of sustainability marketing claims:

“[Sustainability is a] kind of trend. All of these [efforts to be sustainable] have been known for ages but companies started to change themselves since it [sustainability]

became a business, like making money for the companies. Come on. It's quite frustrating." (Ethan)

Subsequently, this perception led to the idea that companies manipulated consumers through seemingly eco-friendly words. As Emily illustrated that "people can easily be fooled", a number of participants criticized the inclination to blindly believe sustainability-related information, including the use of phrases such as "we are all brain-washed" (see Appendix 3, Table 8, Marla:1). In terms of the words used for marketing, it is interesting that Emily was even vigilant about even the smallest unit of information such as the product name by recognizing "how even one word can be so powerful." Her story indicates that people can be easily deceived by seemingly sustainable words. Thus, the awareness of deceptive sustainability marketing claims prevented participants from establishing trust in the information on the packages.

Regarding the visual elements of a package, participants expressed skepticism in the over-use of green, either as a color or in text. As Emily highlighted, "people don't really question what is offered to them" in terms of sustainable products, a number of participants indicated that green was used too much to cheat people. Furthermore, there was the opinion that green became meaningless due to its prevalence. For example, Noah showed his frustration in encountering too much green:

"I just don't trust the green anymore. It doesn't mean anything. There have been so many products that used green even if they don't have any text explaining they're really ecological. (...) It's so common and it's so easy to cheat." (Noah)

The second form of the distrust was skepticism about the type and the process of the authorization. Regarding the type of authorization, a number of participants cast doubts on unfamiliar certificates that they did not understand. Contrary to the previous interpretation that the number of certificates was proportional to the level of trust, the inclusion of unfamiliar certificates without clear explanations might undermine the trustworthiness of the authorized information. Zoe's comments represent the weakened credibility of using an unfamiliar animal welfare mark on the packaging:

"A lot of brands just use it [the animal welfare mark]. And I don't know what it means. For example, are the cows free roaming for the whole day? Or just half an

hour? (...) I just think that this is the term that a lot of products use. (...) I just can't be sure [about the mark]." (Zoe)

Regarding the process of authorization, the *luomu* mark particularly raised doubts about the actual sustainability of the certificate. This interpretation occurred based on pre-existing knowledge that contrasted with the information on packages. For instance, Marla's description of the *luomu* mark demonstrates her distrust in the authorization:

Marla: I think they [companies] want to present "our cows are okay to provide their milk happily to people." through organic mark. That is not true. I don't believe in the production.

Interviewer: Can you tell me more about the production?

Marla: For example, when it comes to eggs, I heard from my relatives and parents, who run a farm, saying that getting a "*luomu* mark" is super easy. Slightly different processing is enough to get that mark, so *luomu* actually doesn't mean anything. (...) I basically don't believe in everything about organic. I think people also don't believe as well like I don't. But they just want to trust because they don't know about the real truth of the production."

Marla's description certainly conveys the disbelief at the authorization process for the organic mark. Based on the knowledge transferred from her family, she assumed that getting the *luomu* mark for milk might be easy, accompanying her attitude of "not believing in everything about organic." It is compelling that she justified her disbelief by assuming that "people don't believe as well like I don't" and defended her argument by providing the excuse that people "want to trust [in organic products] because they don't know about the real truth" like she does.

Thirdly, some participants doubted public norms related to milk consumption in the broader context. They were skeptical of the "market mythologies" about milk (Thompson, 2004) that form the cultural background to consumers' interpretations of milk products. In particular, participants highlighted the role of large companies in forming positive public opinions towards milk:

“I got to learn that (...) dairy or meat industries (...) could be very political and they also lobby a lot to make citizens to think they need dairy or meat products more than they need.” (Riley)

“This company, called Valio, (...) has very good marketing department. It's a little bit crazy how many people drink milk here in Finland. (...) They were saying that milk makes your bones a lot stronger and you can get Vitamin D and all these kinds of things. So, that's why my mother always said, ‘You need to drink this [milk].’” (Emily)

Riley emphasized the political impact of dairy companies on milk consumption. Reflecting on her previous milk consumption, she realized that it was not necessary to consume as much milk as she had been doing and called into question this public norm. Meanwhile, Emily perceived high milk consumption to be informed by extensive marketing by large companies. The story from her childhood indicates that the “crazy” amounts of milk consumed in Finland has been maintained by marketing that has generally emphasizes the products’ health attributes.

In addition, the impact of education on milk consumption was highlighted as it has been used as a powerful device for developing public opinion and encouraging higher milk consumption. Zoe shared her experience of watching two different videos with opposing perspectives on milk:

Zoe: It’s interesting that in the documentary, they have short video clips explaining why the milk production is wrong or what’s wrong with it. However, I found out this video [by Maito ja Terveys ry] made about 10 years ago, targeting children, which talked about the farming and milk production. And they’re saying, “Cows have to be pregnant so that we can get milk and they are doing that every year.” And they’re explaining all the facts that were also used in the documentary [that criticized the milk production]. But in the children’s video, it was saying, ‘it’s totally normal [for the cow]. It’s cow’s job. It’s okay!’ That made me feel that people are really taught to believe that it’s normal and good.

Interviewer: So, you think the people’s attitude depends on how they’re educated?

Zoe: Yes, exactly.(...) I think it’s really interesting to see that they’re [both the documentary and children’s video are] dealing with the same facts that cows need

to be pregnant all the time to produce milk and they do that every year. By the end, they'd [cows would] be turned to beef. And all of them [the facts about milk production] is depicted as it's normal and good for people.”

In Zoe's narrative, messages from a documentary and an educational video contradicted each other while delivering the same facts. Specifically, the educational video was created by the Dairy Nutrition Council (*Maito ja Terveys ry*) and the Finnish Association for Milk Hygiene (*Maitohygienialiitto ry*) with the support of the Ministry of Agriculture and Forestry of Finland's (*Maitohygienialiitto ry*) “Quality Chain (*Laatuketu*)” project. Although the educational video was made by relatively more “authorized” institutions, the clashing perspectives from the two videos fractured the conventional perception of Finnish milk culture. After watching the educational video, Zoe became confused by its message, which contrasted with that of the documentary about the problems inherent in milk production. Indicating that the video could be understood by children through the use of various illustrations and easy words (see Figure 10), Zoe addressed the impact of education on creating public opinion.



Figure 10 A screenshot from an educational video that promotes milk consumption (*Maito ja Terveys ry*, 2016, March 15).

Lastly, general distrust in the authorized information led to calls for more evidence of the company's actions to ensure the product's sustainability and eco-friendliness. On the one

hand, a number of participants demanded more concrete information about the actions taken by companies to achieve their sustainable strategy. For example, Noah criticized a large company's plan to become carbon-neutral by 2035 by contrasting it with a small company that had already been offsetting their carbon footprint:

“[The company Juustoportti] is quite prominent [because] it says that they're compensating the whole carbon footprint. I think (...) it's good because they are doing something else right now, compared to this [Valio], saying ‘in 15 years, we can do that [through a zero-carbon by 2035 strategy].’ (...) Why on earth does it take 15 years to make [change]? (Noah)

On the other hand, participants considered milk packages to lack evidence about the product's actual eco-friendliness. Information about the product's organic (*luomu*) nature, ecological impact, and safety were called into question. Specifically, the organic mark needed to be presented with a more specified explanation of its meaning to gain credibility:

“What does it mean? I need to know whether cows eat organic hay or whatever organic things, or whether production itself is organic or it is good for environment, something like this specific information or knowledge. I think customers might have trust in marks but they don't have that much deeper knowledge or understanding of the information of what exactly organic means in milk.” (Sophia)

Meanwhile, participants regarded the traditional media as a reliable source of information that could be used to complement the knowledge that was missing from the milk packages. Traditional media includes newspaper articles, research papers, and documentaries. For instance, Noah considered traditional media to be more credible than information on the packages:

“I think it's not so much about the packaging but it's more about I hear from media. I think the traditional media is quite important, rather than social media. I think whenever I read very long article which was written by someone who actually dived deep into the topic, as least they tried to justify what they had found and they hopefully have some good reasons or findings that could be the base of their arguments like judgement. It's easier to believe. (...) Still, they are one of the most

trustworthy sources. So, it's quite difficult to be convinced only through the packaging.” (Noah)

As illustrated by Noah, traditional media served as the most trustworthy source of information, which influenced the perception and even pre-perception of the product. Other participants also considered documentaries as a source from which to gain knowledge about the dairy industry. For the most part, documentaries presented a negative view of the dairy industry—especially its sustainable aspects—which prejudiced participants towards the product. However, Riley mentioned that the authorized information such as sustainable brand rankings reinforced the positive perception of the brand and package (see Appendix 3, Table 8, Riley:3). In other words, it can be said that the information gained before encountering the packaging might be considered more powerful than information presented on the packaging itself. As the media has grown more critical of the dairy industry, consumer demand for more concrete evidence of sustainable actions could accordingly increase.

4.2.3 Influence of Finnish milk culture on consumer perception

Overall, Finnish milk culture influenced the participants' perceptions of milk packaging design elements, especially in terms of trust. There are two distinctive characteristics of Finnish milk culture relevant to the authorization phase. Firstly, uniquely high milk consumption and affection for national brands strengthen the credibility of packaging contents. Secondly, the changing Finnish milk culture within different groups challenges trust in traditionally established positive public opinions on milk.

During the interviews, milk was perceived as a staple product in Finland and deeply rooted in the country's food culture. A number of participants recalled consuming an enormous amount of milk since they were born. As milk is consumed everywhere from the home to schools and the workplace, numerous participants described milk consumption an everyday habit:

“Finnish people drink milk a lot. I remember when my family went to a grocery store when I was young. We had like 20 liters of milk each time when we went to the grocery store. We brought that amount of milk and drank it at home. And you have it at every meal. You can always have milk. For example, during lunch,

dinner, breakfast, everything. I've never seen a country where people drink that much of cow's milk.” (Emily)

Moreover, participants indicated that milk consumption has been encouraged by education received from various institutions such as the family, schools, and the media. According to Ethan, a person who did not drink milk was considered an outsider during his school days, which shows that drinking milk was taken as a common sense in Finland:

“It seems like [milk is] a big part of Finnish culture because in elementary school, a lot of people drink milk. Thinking about my school life back then, everyone drank milk more than water, for example during lunch. I even remember that someone asked me why I didn't drink milk when I drank only water. I think people drink at least one glass of milk during each meal.” (Ethan)

This high milk consumption accompanies widespread affection for Finnish brands. Numerous participants said that a preference for Finnish brands had been transferred from generation to generation. The Finnish participants especially preferred to purchase Finnish brands, an action that was regarded as sustainable and patriotic:

“My mother always said to me that we should always buy products from Finland, not from some far away countries like Spain, because Finnish product is more sustainable. (...) The Valio logo is well recognized in Finland. I think for a long time, people might think that Valio product is locally produced when they buy Valio product. That itself has some kind of value in it. People recognize it.”
(James)

“I also think Finnish people used to use Finnish products because of feeling of patriotism there. Like ‘I love my country. I want to contribute to my country.’, which is really good.” (Zoe)

This historically constructed preference for Finnish brands, represented by the massive milk consumption, may influence perceptions of authorized information such as “made in Finland” certification. Moreover, it might regulate the perception of design elements that imply Finnish-ness, as described by Ethan:

“The brand name is Juustoportti, which is translated to ‘Cheese Gate.’ It sounds like a small town or neighbor town, or something like that. It also sounds Finnish, so you can clearly see that it tries to be authentic.” (Ethan)

However, changing milk consumption behaviors in different social groups might threaten the solid trust in authorization relative to milk. The findings show that behaviors related to conventional milk consumption have changed in different social groups such as generations and peer groups in Finland. First, generational differences were apparent in the interviews. Participants said that the middle-aged people preferred to have full-fat milk from popular Finnish brands and demonstrated a particular dislike for Swedish brands:

“My boyfriend’s [Finnish] mom said that she always buys full-fatted milk and cream. And she uses it a lot. (...) I think it’s so Finnish. (...) I think she would choose Valio or Arla products. Maybe Valio because Valio is Finnish company. I think Arla is Swedish [brand, so she might dislike it].” (Sophia)

“The grandma or grandpa might not buy this Swedish brand. Even if it doesn’t seem Swedish. There was a discussion about Arla milk some years ago. She remembers that. (...) Valio milk has always been Finnish and the Arla milk used to be called ‘Ingman’ which was the Finnish company and [Swedish brand] Arla bought the Finnish company. And there was a huge discussion like ‘we can’t drink Swedish milk’ for some reasons. So, it might be the reason why there’s *Suomesta* [made in Finland] text here. This one should say [that it’s from Finland] while others don’t have to.” (Noah)

Meanwhile, the younger generation (around 20s to 30s) was considered to be more open-minded in their taste and choice of milk brands, but they still consumed a significant amount of milk. Moreover, the differences between peer groups was mentioned by participants and extensively illustrated by Sophia:

“[My colleagues] always drink milk. In our workplace, there’re oat milk and cow milk for coffee. I always put oat milk, but my colleagues always put cow milk. I think that they think the taste of milk is better. And some of them drink milk during lunch. I don’t know they think about sustainability. They just drink milk. And when we talked about health stuff, they said that there’s a lot of research showing milk is

good for health. (...) Maybe there's difference between groups. For example, most of my colleagues are developers. They don't care about drinking milk. But then, my designer colleagues, they mostly drink plant-based milk. Also, my friends from design school, they don't drink milk and drink only plant-based milk. (...) Also, my boyfriend is also drink plant-based milk. He said, 'Yes, maybe milk tastes better but this [plant-based milk] is better [in general].'" (Sophia)

Based on her experience, she singled out certain social groups based on their differing milk consumption and characterized them using different descriptors. Her explanations demonstrate that the interpretations of milk packaging could differ between social groups. More specifically, the diversified milk preferences arising from an increasing awareness of sustainability might attenuate a traditionally strong preference for milk, resulting in negative responses on the authorization phase.

Overall, Finnish milk culture was used as the underlying reference for participants to interpret milk package design based on the culturally constructed meanings (McCracken, 2005). However, the long-established trust might be threatened by the changing milk consumption behavior in different social groups. Thus, it is crucial to understand shared cultural meanings associated with milk in order to understand the meanings created by participants.

4.3 The Capabilization phase

The third noticeable perception of milk packaging was related to the purchase of eco-friendly product as a means of fulfilling responsibility for sustainability. As the capabilization phase made responsible consumption materially possible through the creation of concrete infrastructure such as moralized products and services (Read, 2009; Giesler & Veresiu, 2014), the participants commonly regarded purchasing eco-friendly milk packaging as one of the easiest means of being sustainable. Specifically, packaging design elements were powerful indicators that helped participants to evaluate the product's eco-friendliness. Moreover, the materialistic perspective—which encourages consumers to seek to shape their identity through possessing goods—supported capabilizations as presented in Figure 11.

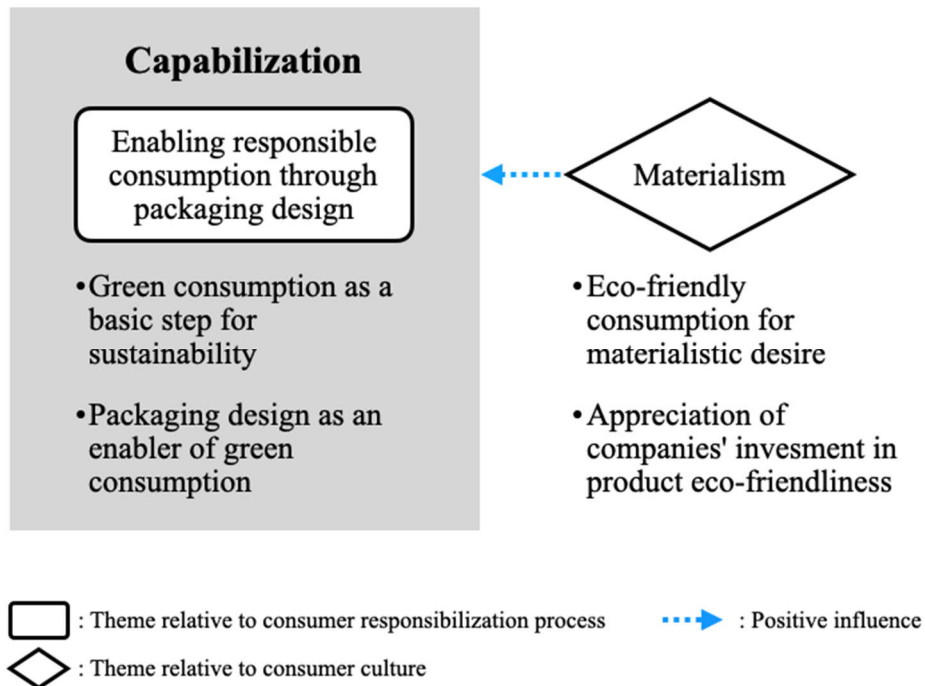


Figure 11 Participants' perceptions of packaging design relative to the capabilization phase and relevant consumer culture

4.3.1 Enabling responsible consumption through packaging design

The findings of this study show that participants regarded ecological cues in packaging as a means of conducting responsible consumption. To start, the notion of contributing to sustainability through green consumption was a prevailing theme among participants. Two angles emerged for this viewpoint: green consumption as a personal contribution and a provocation of social change. For one, participants considered eco-friendly consumption to be a basic step in achieving sustainable practices. To resolve the cognitive dissonance between “busy and lazy me” and “desired me who is active in solving ecological problems.” participants derived the realistic solution of sustainable consumption as a means of fulfilling their responsibility. Emily demonstrated this dissonance and her solution for contributing to the environment as follows:

“When you're interested in these kinds of things, then you don't have time to go out and save the whole world, you know, then that's [consuming sustainable product is] the thing you can do on everyday basis, trying to think what you buy. That's why I like to think about these things [how to contribute to sustainability]. Because I don't

really go out there and do anything else for the world. So, that's the smallest thing that I can do.” (Emily)

Emily considered sustainable milk as a way to “capabilize” her desired moral conduct. As she cannot “go out and save the world” due to the real-world constraints, the reasonable means for personally committing to sustainability was reduced to green consumption, which was “the smallest thing” that she was capable of.

In terms of stimulating social change through consumption in the broader context, participants regarded green consumption as a means to push and encourage economic agents, particularly large companies, to move more rapidly towards sustainability. Consequently, consuming products from local and relatively smaller companies was commonly emphasized during the interviews. In general, participants found that small-scaled businesses were more agile with regard to sustainable business practices and ensuring the sustainability in terms of the production process and in animal welfare:

“[The information indicating the size of this company] gives me a feeling that they will be more willing to develop things [because this company is small]. (...) It feels like smaller companies are quicker and more up to change (...) their things [business practices] or upgrading things [products]. So, I would like to support them [small companies] more.” (Riley)

Critical of the slow adoption of sustainable practices among large companies, participants were willing to consume local products to catalyze large businesses to move towards action:

“Especially [this Valio], the problem is that they have not done anything yet. (...) Of course, it's good that they have plan but if I buy this one, does it make them go for it [sustainability] even more? Or should I buy something else to force them move faster?” (Noah)

When participants evaluated responsibility in practice, packaging design played a significant role to materially indicate the responsible consumption. Specifically, structural elements and informational elements were significant for participants to assess the eco-friendliness of the product. For example, the following quote by Sophia exemplifies the power of materials in packaging design:

“My parents buy very expensive milk, which is €10 per bottle, something like that. And the milk is from free-raised cows living somewhere in a mountain. But the package is plastic! I thought that it’s really contradictory! It’s such eco-friendly milk but it’s in a plastic bottle! (...) It’s really weird. The bottle as a package doesn’t deliver the message [eco-friendliness] at all. It looks nice but whenever I see the plastic... I just always thought that they’re claiming they’re eco-friendly but maybe not.” (Sophia)

Although the milk came from free-range cows at a local farm—a setting that would normally be regarded as highly ecological—the plastic bottle dominated Sophia’s negative interpretation of the product’s eco-friendliness. The common evaluation criteria for product sustainability, such as high prices and product origin, became marginal due to the use of plastic in the packaging design. Thus, packaging material can be a strong indicator that enables or disables consumers to fulfill social responsibility through consumption.

Moreover, the readability of packaging design elements was also highlighted as a significant factor that helped participants engage in responsible consumption. As explained in 4.2, participants’ demand for authorized information or evidence on sustainability was used to justify and encourage their responsible self-conduct. Accordingly, they searched for the informational cues. Numerous participants asserted that the form of such cues should be kept simple and concise in order to help consumers understand the core message as quickly as possible. Hanna and Riley emphasized the importance of the overall readability of information on packages:

“I don’t like it [Valio vapaan lehmän maito] even if it provides lots of information. It also has many visual elements, which makes this package look a bit complicated. (...). It’s talkative and visually loud.” (Hanna)

“The thing I’m not into is too much information. This means that when they [packages] try to give all the information to the customer, even if you don’t need that much. They’re just trying to give information like ‘Oh, we have this. We have that.’ (...) Maybe like a few important things would be quite enough. (...) Like help your [customers’] understanding. It’s better than just having all those marks.” (Riley)

4.3.2 Supporting cultural factors for capabilization

The materialism-based viewpoint, which encourages the possession of products, supports the notion of conducting responsibility through consumption since it quantifies the “capability” of the contribution and stimulates the consumption of eco-friendly packaging. Using materialism as a value structure, individuals seek values beyond the fundamental benefits of the possessed products (Kilbourne & Pickett, 2008). Through the consumed goods, they pursue to shape their identity in order to improve the subjectively perceived well-being. Hence, materialism explains the relationship between individuals and the products that they acquire based on multi-faceted construct with regard to the desired benefits (Kilbourne & Pickett, 2008). In this study, the direction of the materialism presented by participants was bilateral: towards individual satisfaction and towards companies’ financial efforts.

In terms of individual satisfaction, participants commonly interpreted eco-friendly products as expensive or premium, which imbued their purchase with personal satisfaction vis-a-vis their buying power. Participants with this perspective tended to equate the material value of products to their degree of contribution. This viewpoint is also related to the pursuit of self-interest, which was discussed in 4.1.2. For example, Sophia and Emily viewed eco-friendly products as affordable luxury and talked about their consumption in terms of “feeling more special”:

“I feel happy and proud [of myself] because firstly, I’m doing good for nature and secondly, that means that I have some money to contribute myself for nature. (...) [In the past], I was just trying to save money, so I just bought the cheapest one. But nowadays, I can spare some money for the Earth and me. That feels quite good.”
(Sophia)

“[A sustainable product is] a little bit more expensive, so I don't always have the 'money', but then it's also kind of luxury thing, in a way. So, when you go and buy organic stuff like that then you feel more special that day. Or then you feel like you're being healthier or cleaner or doing a better decision for yourself as well.”
(Emily)

In this context, holistic packaging design was perceived as a cue that indicated the material value of the product. Participants perceived that “nice package design” signaled

expensiveness. Specifically, the use of simple visual, fonts, and orderly layouts were mentioned as elements of a “nice” packaging design. As Ava illustrated, visually appealing packaging design related to higher price and represented high quality of the product:

“I think this one [Arla luomu] looks more design-ish. I mean, the company used [a hand-drawn style of] illustration instead of typical cow picture. I guess that is probably designed by professionals. So, I think this company really cares about not only product quality but design, which might mean this milk is a bit more expensive. But I think the company cares about milk quality when it cares about packaging design.” (Ava)

Regarding companies’ financial efforts, the materialistic perspective was also applied to the participants’ perceptions of sustainable claims made by companies. Participants perceived visuals and informational elements presented on packages about sustainable milk production as investments that demonstrated companies’ financial efforts. For instance, maintaining high standards of animal welfare such as raising cows on pasture was perceived by participants as requiring greater investment. Therefore, participants who adopted a materialistic perspective showed respect and appreciation for companies that attempted to embody sustainable practices by consuming their products. For instance, Marla’s narrative describes how presentation of the welfare of cows can be interpreted as the producers’ financial efforts that need to be paid by consumers’ consumption:

“I watched [the television program] *Chef’s Table* and there was an episode of a chef who is also a butcher. He takes care of his cows so nicely like making them freely roaming around the grass. (...) He knows all the names of cows and even prays for cow when killing them. (...) He became famous of the taste of the beef. I was really amazed when watching that TV show. (...) I think people might buy milk from happy cow as a way of respecting the producer. Because the producers need a lot of effort such as financial investment, I respect the producer. Also, I saw a video on Instagram about happy cows which were pastured to the free land for the first time in their lives. They jumped around with joy and I was really moved when I watched the video. To realize those kinds of things, producers should put a lot of effort. So, people might pay for the producer to promote the sustainable acts.” (Marla)

She assumed effort on the part of companies based on their estimated “financial investment” in the sustainable aspects of business, expressing the need to “pay for the producer to promote the sustainable acts”.

4.4 The transformation phase

After thoroughly examining each carton’s packaging elements, a number of participants demonstrated behavioral change towards sustainability in two ways. First, participants who were not interested in information on packages started actively searching for more information through packaging design cues. Second, the design cues were perceived as encouragement for participants to try new things. Figure 12 depicts the findings related to the transformation phase.

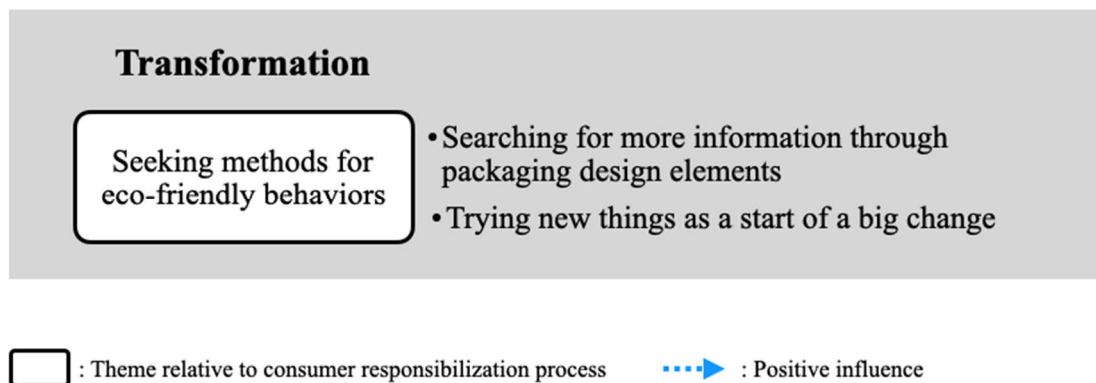


Figure 12 Participants’ behavioral changes through packaging design elements

In terms of information-seeking behaviors, it was compelling to find that some participants who had not paid attention to the information on the packaging started to search for more information through design elements during the interviews. For instance, they logged onto the relevant corporate website to learn more about the company’s sustainable business practices and searched for more information about an unfamiliar certificate. Zoe was especially active in this respect despite saying that she was not interested in the text of the milk packages:

“OK, they [Valio vapaan lehmän maito has] ‘read more here.’ (...) For me, I’d like to know more because this [information on the package] raises questions more. (...)

[Participant scans a Quick Response, or QR code to access Valio’s website]

So, this is like sustainable milk production. Carbon neutral until 2035. OK, this is nice. They’re providing information where the carbon emission comes from. Cows, food fed to cows, other areas... and the measurement for it. And they’re providing the reference. Oh, here’s the researcher thing. I think this explains well. (...) This researcher thing gives me more trustworthy information.” (Zoe)

Spurred by a “read more here” sign on the package, Zoe became curious about the company’s claims and said, “I’d like to know more.” Thanks to the QR code, she was able to obtain more information and rechannel her interests towards Valio’s sustainable strategy. As behavioral change can be influenced through the adoption of new technology (Giesler & Veresiu, 2014), the QR code on the package supported Zoe’s research, which had not happened before. As a result, she found a wide range of authorized information on the topic, which in turn reinforced the authorization of the consumer responsibility by creating more trust in both the brand and the product.

With regard to behavioral change by trying new things, it is noteworthy to examine the anecdote of Riley. She associated a campaign to a smart way to be sustainable and applied the perspective to the perception of packaging design. To generate behavioral change, Riley suggested trying new things in small steps. She provided the example of *lihaton lokakuu* [meatless October], a campaign initiated by two Finnish celebrities to promote a sustainable diet:

“In Finland, there is a campaign, called *lihaton lokakuu*, meaning ‘meat-less October’. It’s a campaign started by two famous Finnish celebrities. (...) It’s quite famous and beloved by Finns. The celebrities are documentary producers, making “Mad Ventures” and “Doc Ventures” (...) They’re the stars. They became so beloved and famous here and they’ve given a lot of influence to the society. (...) As far as I know, I don’t know it could be wrong, I heard that they started this campaign, *lihaton lokakuu*, to just give some awareness that everybody can try one month to reduce meat consumption. When it becomes October, not all of my

friends, but some of friends do that. I can hear about “lihaton lokakuu”, for example, when we go out for eating, they ordered some vegetarian or vegan menu. So, I thought, ‘Well, it’s pretty interesting campaign.’ And I want to be part of it. I don’t think I’ve never been completely meatless during October but at least, I become aware of my choices and try to minimize a lot. And then after one month, I kind of became to think, ‘Well, actually I like this diet. I’m more comfortable with my stomach.’ And then I try to keep this diet like reducing meat after the campaign period.” (Riley)

Her story provides implications that can be applied to packaging design and suggest a way to create behavior change. Riley highlighted two factors that generated behavioral change: celebrities and a campaign. Firstly, it can be said that the campaign was authorized by celebrities who were “beloved and had given a lot of influence to the society.” Thus, the moralistic problem—meat consumption, in this case—became legitimized and validated by celebrities (Giesler & Veresiu, 2014). Moreover, a campaign can serve as a concrete infrastructure for consumers to realize their moral subjectivity (Read, 2009; Giesler & Veresiu, 2014), in the process of enabling the responsible consumption. As a result, even a modest attempt such as partly participating in the campaign for few days may change the consumer’s post-campaign mindset and behavior:

“I think it’s super smart way to change people’s behavior. Because usually, when you want to change, you could be quite afraid of trying. Because you’re sticking to your existing behavior or daily choices. (...) It could be actually one week. When you think about not buying meat for one week, then you get to be so creative, thinking other options. (..) It gives you a chance to think about other things. You can realize that you can actually enjoy other options without meat. It’s kind of giving opportunity to have some awareness.” (Riley)

Riley also applied this perspective to packaging design. She stated that she tended to try new packaging design as a way of broadening her product choices that might generate greater behavioral change in terms of milk consumption:

“I like it when company tries something new or something else. Like having big text is also nice. (...) I thought that it’s [Juustoportti’s package is] super weird to use just black and white [because it’s different from typical Finnish milk package].

But I think [Juustoportti] did really nice try. (...) Packaging-wise, I can try different things. When I see some interesting packages, I want to try them. But when I try and then if the milk is not as good as the one that I've usually had, then I just try but I don't really keep buying them." (Riley)

Riley ranked Juustoportti's packaging highly in terms of its uniqueness of visual design. The distinctive visual elements encouraged consumption by challenging her image of the typical Finnish milk package. Indeed, she showed that a small try—in this case, purchasing milk within uniquely designed packaging—can generate bigger change, which might be re-purchase of the product. However, ultimate product adoption may depend on the product quality, which limits the role of visuals on the packaging in the transformation phase.

Overall, it is substantial to highlight that participants' perceptions in terms of transformation was not the end of the consumer responsabilization routine. Rather, the perceptions were interrelated to other phases of the routine. For instance, searching for more information can be related to the authorization phase and using unique packaging design as a means to generate milk consumption can be linked to the capabilization phase.

5. Discussion

This chapter discusses the findings of this thesis in relation to the earlier literature review and the theoretical framework, answering the research questions in the process. The main research question and sub-questions are as follows:

- Can packaging design function as an ecological cue to guide consumer perception?
- What is the role of individual packaging design elements in the process of consumer responsabilization?
- How do consumers construct meanings of an ecological nature through specific design cues on milk packages?

The theoretical framework for this thesis was established on the basis of these research questions and the literature review, focusing on the perception of consumer responsabilization as manifested by packaging design elements as ecological cues (see Figure 2). Through data analysis, it was found that consumer culture also influenced the perception of packaging design elements. Combining and analyzing the findings in relation to the extant literature, the theoretical framework will be augmented to a conceptual framework that includes the influence of both consumer responsabilization process and consumer culture.

In this chapter, the discussion of the findings is structured as follows. Firstly, 5.1 answers the first sub-question by reflecting on the use of the consumer responsabilization process (i.e. the PACT routine) to examine the role of packaging design in guiding consumer perception. Secondly, the second sub-question is answered in 5.2 by discussing how consumers construct meanings of packaging design through cultural factors, with special attention given to the influence of the such factors on the consumer responsabilization process. In the process, the previously established theoretical framework of this study is expanded into a conceptual framework based on the synthesis of findings, which serves to answer the main research question in 5.3.

5.1 Consumer responsabilization as a novel approach for packaging design research

Building on consumer responsabilization theory, this study tests a novel approach that differs from conventional research on consumer perception of packaging design elements. Specifically, the present study links the assumptions that underlie packaging design elements to the corresponding consumer perception of such elements. The following subsections assess the value of this theoretical foundation with regard to the research goal, namely the investigation of the role of packaging design in guiding consumer perception towards responsible consumption. Subsequently, the contributions of this thesis are summarized by discussing how the findings fill in previously identified research gaps.

5.1.1 Consumer responsabilization theory and consumer perception of packaging design

Consumer responsabilization theory and the PACT routine (Giesler & Veresiu, 2014) in particular provide a useful framework for understanding the underlying assumptions in packaging design based on the notion that a “responsible consumer” can be shaped through marketing practices (Caruana & Crane, 2008; Shamir, 2008). Through empirical research, this thesis shows that consumers actually construct and accept the social responsibility through packaging design elements, following the PACT routine. The findings emphasize the significant role of packaging design in communicating consumer responsabilization to consumers.

Firstly, both verbal and graphical packaging design elements facilitate consumers to personalize the ecological problems. Regarding the verbal elements, the texts seemingly related to sustainability such as organic (*luomu*) mark, product descriptions, and sustainability marketing claims made participants reflect on their awareness of ecological issues during the interviews. The dissonance between the responsible consumer with sufficient knowledge about sustainability and the irresponsible consumer with deficient knowledge reframed the solutions to sustainability problems as individuals’ efforts to be more responsible (Giesler & Veresiu, 2014; Caruana & Crane, 2008). The resulting responsibility to acquire more knowledge was followed by the different responses to the information on the packages in the subsequent authorization phase. Meanwhile, graphical elements elicited both positive and negative emotional reactions from consumers. For instance, the feelings of guilt appealed to the participants and they sympathized with

ethical issues related to animal welfare. This finding is in line with the earlier research on the use of guilt in advertising to support responsible consumer behavior (Steenhaut & Van Kenhove, 2006; Antonetti & Maklan, 2014).

Secondly, informational packaging design elements played a significant role during the authorization phase. The information on the packages was generally used to justify the personalized moralistic problem (Giesler & Veresiu, 2014)—mainly a lack of knowledge—and encouraged responsible self-conduct (Hamann, 2009). It is important to note that the use of such information did not indicate that participants fully trusted all the information on the milk packages. The point is that they “wanted” to believe. In line with Giesler & Veresiu’s (2014) study, the findings from this thesis also showed that consumers perceived the information on the packages as “authorized” information that could be used as a source to validate and legitimize their newly gained social responsibility.

Thirdly, structural and informational elements in packaging design demonstrate the concrete infrastructure that makes responsible consumption materially possible (Read, 2009; Giesler & Veresiu, 2014). As an important indicator of a product’s eco-friendliness, packaging design enables or disables consumers from fulfilling their social responsibility through the consumption of a product. In this thesis, the material and readability of packaging design acted as powerful gatekeepers to the participants’ final consideration of consumption.

Finally, the findings about the behavioral change influenced by informational and graphical cues on packaging corresponded to the transformation phase of the consumer responsabilization routine. As Giesler and Veresiu (2014) explained, consumers can change their behavior by adopting or consuming a new technology or a product; the findings from this study demonstrated that including new technology in the form of a QR code in packaging design could lead consumers to seek out more information. Considering that more information creates more trust during the authorization phase, this finding shows the interrelation between transformation and authorization phase of the consumer responsabilization routine (Giesler & Veresiu, 2014). Moreover, the findings regarding behavioral change in terms of milk consumption, derived from a unique visual design, are in line with research on the power of visual communication in packaging design. The research has also shown that visuals of packaging design significantly influence consumers when considering low-involvement goods such as milk since such products entail minimal

effort from consumers during the purchase decision process (Crilly et al., 2004; Silayoi & Speece, 2004).

5.1.2 Assessment of consumer responsabilization theory in the context of consumer and packaging design research

The findings from this thesis demonstrate the value of consumer responsabilization theory in consumer and packaging design research. This study assessed consumer responsabilization theory from a consumer perspective, thereby demonstrating its applicability in consumer research. In addition, this perspective fills a research gap within consumer responsabilization studies, which have mainly focused on the organizational viewpoint and emphasized the power derived from the production of knowledge by corporations (Caruana & Crane, 2008). By turning its lens on consumers, this thesis tested the assumptions underlying the theory that consumer responsibility is constructed through corporate marketing communications. Through an in-depth interview study, this study confirmed that consumers can actually be “responsibilized” through the interpretation of packaging design elements. By providing the validity of the theory from a consumer perspective, this thesis offers new avenues for investigation on consumer responsabilization theory within the field of consumer research.

Regarding the area of packaging design research, this thesis provides a new approach for examining packaging design elements through the lens of consumer responsabilization theory. Building upon the studies of Giesler and Veresiu (2014), Caruana and Crane (2008), and Shamir (2008), the theory explains how the packaging design elements are communicated to guide consumer perception, especially in terms of eco-friendly consumption. Moreover, this approach enables a more in-depth understanding of packaging design as a marketing tool by examining how the underlying assumptions and expectations embedded in packaging design are communicated rather than merely investigating design elements at face value.

However, the design elements are not always interpreted according to the consumer responsabilization process due to the influence of consumer culture. The findings from this thesis showed that consumer culture can support or hinder the communication of consumer responsabilization. Thus, the central research question—“Can packaging design function as an ecological cue to guide consumer perception?”—can be only partly answered through

the lens of consumer responsibility theory. Other interpretations of packaging design derived from cultural factors are discussed in 5.2 with regard to literature on consumer culture.

5.2 The influence of cultural factors on perceptions of packaging design

The findings from this thesis show that the consumer perception and the meanings attached to packaging design elements are not homogeneous (Thompson, 2004), even if consumer perception can be guided by ecological cues in packaging design. In line with consumer culture research, the findings demonstrate that consumers perceive packaging design elements as a medium of our culture (McCracken, 2005) or a means of materializing and reproducing culture (Dolan, 2002). The meanings derived from the cultural factors support or disturb the consumer responsabilization process in terms of guiding consumer perception. The following subsections elaborate on how three distinctive cultural factors found in this study—popular culture, materialism, and Finnish milk culture—significantly influenced the perception of packaging design elements, with special attention given to their relationship to the phases of consumer responsabilization.

5.2.1 Popular culture facilitating the personalization phase

In line with consumer culture research, the findings demonstrate that subsets of popular culture such as hipster culture was interpreted as a particular lifestyle mold that allowed participants to realize a socially responsible as well as “cool” way of life. Hipster culture was associated with packaging design elements such as brown-colored materials, hand-drawn fonts and illustrations, and rugged surfaces. This perception was different from the perception during the personalization phase—in which participants took ecological problems personally and consequent responsibility for solving the problems—in that it was rather a process of constructing their desired self-identities through the responsible consumption.

Building on the study of consumer culture by McCracken (1988), the findings from this thesis showed that the contrast between the consumer’s image of popular culture and their perceived self-identity motivated them to undertake more socially responsible efforts. Some participants (see Appendix 3, Table 11) described the subcultures of hipsters as ideal forms of responsible consumption, which conflicted with their self-perception as

consumers who lacked knowledge and interest in the subject matter. Furthermore, the present study demonstrated that the image of undesirable identity (the ignorant consumer) was fixed in fantasy (the hipster as actively responsible consumer) through ecological cues in packaging design that could lead to responsible consumption. As “consumer goods are bridges to... hopes and ideals” (McCracken, 1998, p.104), packaging design elements perceived as manifestations of hipster culture were used by the participants to bridge conflicting cultural meanings.

Regarding its relationship with the consumer responsabilization process, popular culture facilitates the personalization of social problems since consumers continuously compare themselves to a culturally ideal form. Thus, the reflection intensifies the personalization process by guiding consumers to embrace the social problems as personal problems by fixing their identities towards the ideal and ecologically responsible social actors.

5.2.2 Materialism disturbing personalization and supporting capabilization

Aligning with previous consumer culture research, the findings from this study demonstrate the culture of “consumption, or the equation of success and development with accumulation of material goods” (Firat, 1999, p. 284, as cited in Connolly & Prothero, 2003). This viewpoint can be translated into materialism, a value structure in which individuals seek values more than the fundamental benefits of the acquired goods (Kilbourne & Pickett, 2008). As one of the prevailing cultural factors emerging from the interviews, materialism influenced the value of responsible consumption perceived through packaging design elements. These findings align with the previous research that argued that consumers construct and hone their identities by consuming products that manifest materialized cultural values they seek to obtain (Connolly & Prothero, 2003; Giddens, 1991).

With regard to the consumer responsabilization routine, a materialistic perspective disturbs the personalization phase but supports the capabilization process. Firstly, this thesis found the materialistic perspective to be a negative influence on the personalization phase. The participants’ interpretations of the “organic” and “animal welfare” cues in packaging design demonstrated a materialistic pursuit of health and hedonic value. As a result, participants’ concerns about a product’s sustainability were not based on a desire to protect the environment but rather to construct a desired self-identity. For example, the inclusion

of an animal welfare certificate was interpreted as a guarantee of milk quality for personal health, not for the good treatment of cows. Moreover, participants interpreted ecological cues in packaging design as indicators of an expensive or premium product, which brings hedonic value. Thus, it could almost be said that the ecological cues on packaging were turned into commodities by consumers to communicate certain meanings associated with the creation of desired identities (Connolly & Prothero, 2003).

Therefore, the materialistic viewpoint disturbs the personalization phase of consumer responsabilization by alienating consumers from engaging in social problems unrelated to their self-interest. As materialism encourages consumers to make a “selfish choice” for their desired identity rather than for altruistic purposes, the appeal to take social responsibility loses its persuasive power. However, it could be easier for materialistic consumers to personalize the environmental problems as a means of improving their own well-being and shaping their desired self-image, provided that the issue is aligned with their personal interests.

Secondly, participants with materialistic perspective tended to use packaging design elements to assess the value of their consumption or the level of investment in the product by corporations. In other words, perceived ecological cues in packaging design were “materialized” and quantified in terms of financial value, in accordance with a materialist viewpoint. The resulting value was perceived not only as a means for constructing their desired identity but also the degree of both consumers’ and dairy companies’ contribution to the environment.

Hence, materialism supports the capabilization process by translating ecological cues into a material value, thereby enabling the responsible consumption. As the materialistic perspective encourages the consumption of sustainable products, the significance of consumption supports the notion of capabilization that consuming a moralized product can be a way to conduct responsibility (Giesler & Veresiu, 2014). For instance, the findings from this study interestingly demonstrate that the corporations’ financial investment in a product—as assessed through ecological cues such as certificates and sustainability marketing claims—was interpreted as a laudable effort that needed to be promoted and more encouraged by consumers through consumption of such companies’ products. This indicates that, although materialism might hinder the personalization of ecological

problems, it can ultimately lead to the same results (i.e. consumption of eco-friendly products) that consumer responsabilization seeks to achieve.

This is an ironic result, as materialism has been widely criticized for its negative environmental consequences. Critics have indicated that materialism suggests the paradigm of a “good life” as a primary objective of the society (Schmookler, 1991) and companies fortify and reward materialism as a form of consumption (Kilbourne & Pickett, 2008). Thus, consumers have little reason to change their materialistic behavior, which entails even greater environmental decline. However, this thesis demonstrates that consumer responsabilization as manifested through packaging design elements can resolve the conflict between materialism and environmentalism by guiding such consumers to participate in responsible consumption for a better environment.

5.2.3 The role of changing milk mythologies in Finland relative to the authorization phase

In line with past research on cultural myths that create positive brand images (see Holt, 2002; Johar et al., 2001), the findings from this thesis demonstrate that pervasive myths about milk in Finnish consumer culture influence consumer perception of milk packages. These firmly maintained traditional values of milk support the authorization phase of the consumer responsabilization routine; however, the evolution of these myths also challenges the trustworthiness of the authorization.

For one, the findings show that milk has long been positioned at the center of Finnish food culture, strongly supported by market mythologies about milk. The most frequently mentioned myth concerned the product’s health benefits, which have been extensively used to create compelling promotional appeals through advertising and mass media (Thompson, 2004). For instance, the images of health and strength derived from milk have been encoded in advertisements featuring athletes (see Appendix 3, Table 13, Ethan:2). A unique point of the findings is that this kind of milk promotion has been extensively practiced by nearly every social institution in Finland, including families, schools, workplaces, and the government. As a result, the myth exerts a significantly positive influence not only on consumers’ brand loyalty but also on the meanings that they ascribe to their experiences such as perceiving milk packaging design (Arnould et al., 1998).

In terms of consumer responsabilization, the traditional milk mythology positively influences the authorization phase by providing trust in the authorized information. The findings from this study show that Finland's historically established milk culture, which is maintained through milk mythology, influences participants to trust in products of Finnish origin and even in the information on the packages "regardless of the fact." This strong belief in milk makes packaging design elements trustworthy, reinforcing the consumer responsabilization process.

However, the research also found evidence of changing milk mythologies among participants. The findings reveal varied milk consumption behaviors across different social groups. Specifically, consumers in their 20s to 30s and designers were notable for being more open-minded to different tastes, brands, and types of milk compared to traditional milk consumers. This changing milk culture indicates that the prevailing milk mythology might be also changing or, at the very least, no longer appeals to some segments of the consumer market.

The changing milk mythology, in turn, might negatively influence the perception of packaging design elements in relation to the authorization phase. The findings clearly demonstrate that the public norms about milk, which can be interpreted as part of the traditional milk mythology, are challenged with questions about the source of this public opinion. Requesting more evidence, participants were skeptical about the information presented on packaging and even expressed animosity towards greenwashing.

In terms of generalizability, the insights about Finnish dairy culture contained in this thesis can be applied to Scandinavian countries with a similarly prominent milk culture. However, the findings about the role of marketplace mythology can be applied to other contexts within marketing studies in order to help explain how consumers perceive marketing messages. Just as Stern (1995, p.183) wrote that myths are "constantly renewed to fit contemporary life," research on the changing cultural myths about a product could be instrumental in understanding how consumers perceive marketing channels such as packaging design.

5.2.4 Implications of cultural understanding for packaging design

Cultural understanding of packaging design contributes to the studies of packaging design and sustainability marketing. In terms of the literature on packaging design, the findings from this thesis broaden the concept of sustainable packaging design elements from managerial point of view (e.g. Azzi et al., 2012; Keoleian et al., 2004; Verghese et al., 2010) to a consumer perspective. This thesis shows that it is difficult to generalize ecological cues in packaging design due to the cultural influences in different contexts.

Moreover, this study demonstrates that consumers are active agents rather than passive observers when it comes to creating meaning from packaging design elements. To date, the packaging design literature has overly focused on the spontaneous impact of sustainable design elements on certain consumer behaviors such as consumers' product choice (Rokka & Uusitalo, 2008) and purchasing intention (Magnier & Schoormans, 2015). By shifting the perspective, this thesis provides a holistic explanation of how (and based on which factors) consumers perceive ecological cues through packaging design. Thus, the findings complement research by Magnier and Crié (2015) that classified the sustainable packaging design elements from a consumer perspective by providing cultural meanings attached to such elements.

In terms of sustainability marketing, the findings from this study show that packaging design can be a medium for conveying consumer culture, which can in turn help consumers to pursue a more ecological lifestyle—a topic that has rarely been investigated in research. Specifically, this study found that cultural factors such as popular culture, materialism, and Finnish milk culture were communicated through milk packaging design and influenced participants' perception of ecological cues on packages. Therefore, this thesis provides a more context-specific understanding of consumer culture and indicate the significant role of packaging design in sustainability marketing.

5.3 Synthesis of the findings

The aim of this thesis—understanding the function of packaging design as an ecological cue to guide consumer perception—was achieved through a qualitative research approach that provided a holistic understanding of consumer perception. The flexibility and openness of in-depth interviews enabled the discovery of consumer context-bound,

subjective meanings of packaging design elements, which have received little attention in the packaging design literature.

This thesis sheds light on the interrelated roles played by the consumer responsabilization routine and consumer culture in shaping consumer perception of packaging design elements. The findings from this study demonstrate the significant role of individual packaging design elements in communicating consumer responsabilization and further guiding consumers to take responsibility for ecological issues. However, the consumer perception can be influenced by cultural factors that create other meanings for the design elements.

By accounting for the influence of consumer culture on the consumer responsabilization routine, the previously established theoretical framework (see Figure 2) is augmented as follows (see Figure 13). While the theoretical framework that mainly focused on the role of the consumer responsabilization process in shaping consumer perception, the conceptual framework added the influence of consumer culture on consumer perceptions of packaging design elements. Specifically, the framework displays how consumer culture holistically influences consumers' meaning-making of packaging design elements. It also highlights that packaging design can be perceived through consumers' highly context- and time-specific understanding of consumer culture.

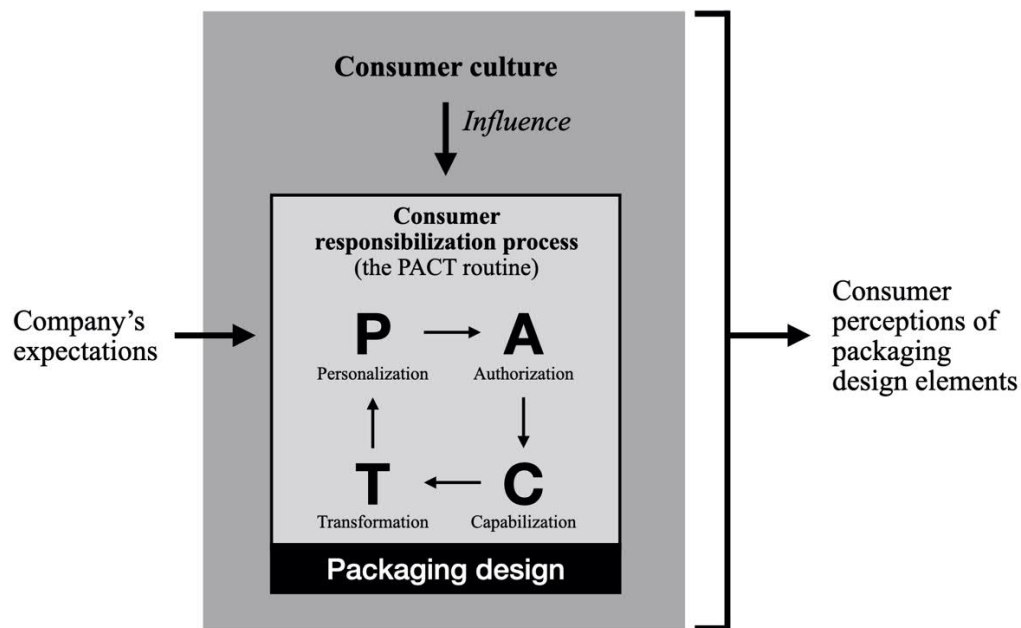


Figure 13 Conceptual framework of the findings from this thesis

As illustrated in Figure 13, companies' expectations and assumptions with regard to consumers' eco-friendly consumption are manifested through packaging design elements based on the consumer responsabilization process: personalization, authorization, capabilization, and transformation. Through the process, consumers can be "responsibilized" into being more aware of the environmental issues and actively fulfilling self-responsibility through consumption. However, consumer perceptions might vary due to the influence of the consumer culture, which can either support or disturb the consumer responsabilization process. For instance, this study identified popular culture, materialism, and marketplace mythology as cultural factors that could positively or negatively influence the consumer responsabilization process. The types of cultural factors and the direction of their influence on consumer responsabilization can vary according to different cultural contexts.

Thus, this study's central question—"Can packaging design function as an ecological cue to guide consumer perception?"—can be answered, "Yes, but it depends on the influence of cultural factors." This suggests that packaging design, especially as a sustainability marketing tool, needs to be examined from a holistic perspective and account for embedded expectations from companies as well as the various cultural discourses surrounding consumers.

6. Conclusions

The final chapter summarizes and reflects on this thesis as follows. Firstly, 6.1 provides an overview of how research questions were answered through empirical research and reflects on the contribution of this study to the extant literature. Secondly, 6.2 discusses the implications of this thesis for marketing and packaging design. Thirdly, 6.3 demonstrates the limitations of this study in terms of the collected data set and milk packaging as a research subject. Lastly, 6.4 provides suggestions for future research.

6.1 Research summary

Packaging design has been actively used as a competitive marketing tool, especially in the context of sustainability marketing, to encourage consumers to practice sustainable consumption. This phenomenon is especially prominent in milk packaging, where sustainability marketing claims are explicitly manifested through design elements. However, can packaging design elements actually function as ecological cues to guide consumer perception? This was the starting point for this study.

To answer the primary research question, this study examined the role of packaging design in guiding consumer perception in the context of Finnish milk packaging. Rather than measuring the quantitative impact of packaging design on consumer product preferences or willingness to pay, this thesis employed qualitative empirical research in the form of in-depth interviews to uncover the motives and cultural factors underlying design element meanings construed by consumers.

The findings showed that participants took responsibility for solving ecological problems through the four phases of consumer responsabilization process embedded in packaging design elements. Consequently, consumption of eco-friendly packaging was regarded as a means to fulfill shared social responsibility for the environment. However, consumer culture also played an important role in the construction of meanings in relation to packaging design elements and it could either support or hinder the consumer responsabilization process. In short, packaging design can function as a cue for guiding consumer perception towards eco-friendly consumption, but consumer culture can limit this role.

The findings from this thesis contribute to the research on consumer responsabilization theory and packaging design in terms of sustainability marketing. With regard to the former, this study assessed the theory's validity from a consumer perspective, which has been little investigated thus far in the literature. Consequently, this thesis broadens the applicability of the consumer responsabilization theory in consumer research. In terms of the latter, the findings provide a more holistic understanding of consumer perceptions of packaging design based on cultural factors that influence the consumer responsabilization process. The application of consumer responsabilization theory and its relationship with consumer culture offer new insights for analyzing packaging design, especially in the context of sustainability marketing. This calls for further study in future research.

6.2 Implications for marketing and packaging design

Heiskanen and Pantzar (1997, as cited in Connolly & Prothero, 2003) posited that changes in consumer practices can only be achieved by the shared understanding of “how and why we consume” (p. 276) by policymakers, businesses, and consumers. The findings from this thesis provide an understanding of “how” to guide responsible consumption through packaging design and “why” consumers follow or reject this guidance through their perceptions of design elements. Specifically, the more holistic understanding of packaging design derived from this thesis can be applied to sustainability marketing and packaging design in order to yield “changes in consumer practices”.

In terms of marketing, the consumer responsabilization process can be used to develop sustainability marketing strategies. The findings from this study showed that consumers are actually “responsibilized” through the perception of packaging design elements where companies' expectations are manifested through the four phases of consumer responsabilization process. This suggests that corporations can be deeply involved in creating and communicating messages about responsible consumption through packaging design. In the broader context, marketers can apply the process of consumer responsabilization as a framework for developing other marketing communication methods.

Moreover, understanding of consumer culture is crucial for marketers to calibrate marketing communications to changing consumer needs. This study underlines the

importance of cultural factors that can support or hinder the communication of ecological cues on packages. First, the insights on emerging popular culture contributed by this thesis enable more agile marketing required to meet new trends. Second, this thesis also suggests examining prevailing consumer culture based on materialism since it can disturb or support the marketing messages of an ecological nature. Even though materialism has been criticized for its negative impact on the environment, marketers can make clever use of this perspective to spur consumers to embrace more ecological products as a means of fulfilling their self-interests and shaping their desired identity.

In terms of packaging design, this thesis describes how consumers interpret certain design elements as ecological cues. For instance, it is worth noting that participants did not perceive the color green as ecological. Some consumers even viewed the use of the color green as greenwashing, which created a negative perception of the product. Thus, packaging designers should be cautious about assuming the conventional meanings of design elements and closely follow their changing perceptions among consumers.

Lastly, both marketers and packaging designers must carefully consider how to present the informational (verbal) design elements. The findings show that informational cues tended to be more important than visual ones for consumers, especially in terms of creating trust through authorization and transforming their behavior towards the adoption of an eco-friendly lifestyle. In the same way that small informational cues such as a QR code and a link to a company's website led participants to search for more information, other new technologies or packaging design techniques could be applied to increase trust in the product.

6.3 Limitations

This study has a number of limitations relative to the diversity of the collected data set and the research subject. Firstly, the data set was limited in terms of the age group, occupational, and cultural background of the interview participants. This thesis focused on the perceptions of millennials aged 22 to 35 since they are regarded as the main customers of sustainable products (Young, 2018) and thus assumed to have more knowledge in general on sustainability compared to other age groups. Hence, consumers in other age groups possibly construct different meanings for package design elements, which was

already captured by the findings in 4.2.3 that showed varying milk consumption cultures across different age groups.

In terms of the participants' professional backgrounds, this thesis purposely examined the perceptions of participants who have some discernment in design in order to maximize the quality of data related to visual elements of packaging. As a result, it was possible to collect a series of ample elaboration on experiences, personal opinions, and emotions relative to various design elements in detail. However, there could be other interpretations of milk packaging elements across different social groups, as highlighted in 4.2.4.

Regarding the cultural backgrounds of the participants, only half were Finnish and half were Koreans who did not grow up in Finland. Since the findings showed that Finnish people grew up with milk—a product that has traditionally been a central part of Finnish food culture—non-Finnish participants may have had limited experience with these deeply rooted cultural factors. This was inevitable, although the recruitment guidelines required at least four years of residence in Finland for foreign participants in order to ensure that they had sufficient knowledge about Finnish milk products.

Furthermore, the research subject—milk packaging design—was also limited by the strong influence of Finland's unique milk culture on participants' perceptions of milk. Milk packages were chosen for this study, because the phenomenon of companies manifesting their sustainable strategies through packaging design elements was notable in the Finnish dairy industry. Thus, the milk packages were deemed to be an appropriate medium for studying consumer perceptions of such elements. However, it was found that Finland's milk-centered food culture influenced consumer perceptions, especially when it comes to creating trust in brands and products. Therefore, the findings might only be applicable to similar contexts such as Scandinavian countries with similar milk consumption patterns as Finland.

However, it should be noted that the aim of this thesis was not to generalize the findings through quantitative measurements (e.g. the impact of packaging design on consumer willingness to pay). Rather, this study was intended to be exploratory by nature and aimed to examine consumers' subjective perceptions of ecological cues in packaging design. Based on the research objective and consequent interpretive research approach, it is

appropriate for the findings to be time- and context-specific. Therefore, the current findings can be meaningful for providing new insights and avenues for future research.

6.4 Recommendations for future research

The limitations and findings of this study provide new directions for future research. Given the limitations with the diversity of the collected data set and research subject, the findings from this thesis should be further explored in other settings. Moreover, additional examination of the emerging themes would contribute to holistically understand consumer perceptions of packaging design in relation to sustainability marketing.

Firstly, the applicability of consumer responsabilization theory in packaging design research can be further explored in other contexts such as different consumer groups or with regard to other marketing tools. In terms of consumer groups, it would be interesting to examine consumer perception of packaging design elements across different age and social groups in Finland or surroundings countries. The results would possibly help better understand the role of packaging design in guiding consumer perception. In addition, it would be worth studying consumer perception of packaging design across different cultures (e.g. comparison of consumers in Finland and Korea). These findings might provide insights for the area of international marketing.

In addition, future research could apply consumer responsabilization theory to other marketing tools. As the communication of corporate social responsibility is a universal phenomenon in the current marketplace, consumer responsabilization via different marketing tools could be an exciting avenue of research for understanding how sustainability marketing guides consumer perception. Future research in such an area would enhance the applicability of consumer responsabilization theory. This would also complement both the study by Caruana and Crane (2008) that investigated the website of a “responsible travel” company based on the theory from organizational perspective and the present study, which examined packaging design elements as a tool for responsabilizing consumers.

Secondly, two themes should be investigated in greater detail: consumer animosity towards greenwashing and unclear definitions of sustainability among consumers. In terms of the

former, this study found that a number of participants expressed distrust in marketing claims made on packages and concern over being deceived by greenwashing. In this thesis, consumer perception of greenwashing through packaging design was simply explained in negative relation to the authorization phase of the consumer responsabilization process. An important cultural factor that could negatively influence consumer interpretations of packaging was the changing milk culture in Finland. However, more in-depth research is needed on the identified issues with greenwashing to obtain a more complete understanding of the role of packaging design in sustainability marketing.

In addition, the consumer-driven concept of “eco-friendliness” should be further explored in future research. Although the participants in this study were asked to elaborate on how they perceived ecological packaging design elements, their interpretations of “ecological” varied. For instance, animal welfare—an ethical issue—was perceived as an ecological issue by a number of participants. When describing their perceptions of milk packaging, the word “ecological” was used interchangeably with “sustainable”, “ethical”, and “moral”. This thesis did not draw a clear line between these concepts in order to examine how consumers constructed meanings around perceived ecological design elements using their own language. Thus, it would be interesting to study the definition of eco-friendliness from a consumer perspective.

In line with the consumer-driven concept of eco-friendliness, the role of each sustainable packaging design element should be investigated in more detail from a consumer perspective. This thesis did not examine specific sustainable packaging cues since such cues themselves were not the focus of this study. However, the findings of this study show that even design-oriented consumers did not care much about visual cues but rather regarded verbal cues important. This raises another question, “What is the most powerful design cue that influences consumer perception of packaging eco-friendliness?” Therefore, it could be an exciting research area that investigates individual packaging design elements—for example, measuring the impact of each cue on guiding consumer perceptions.

6.5 Concluding remarks

Packaging design has been rapidly changing towards sustainability, communicating corporate social responsibility and ecological aspects of products to convince consumers to follow the eco-friendly movement. Indeed, green has become the new black in packaging design. However, this thesis raised a question, “Does green (packaging design) actually mean green (ecological) to consumers?” To answer this question, this thesis brought a novel approach to packaging design research by integrating consumer responsabilization theory and consumer culture studies. As a result, this thesis shows that consumer perceptions of the “green” packaging design elements are influenced not only by companies’ expectations underlying the consumer responsabilization process but also cultural factors which can generate varied meanings of such elements. Thus, this thesis highlights that sustainable packaging design cannot be typified by certain design elements and should be examined and developed through considerations of various consumer perspectives.

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Appendices

Appendix 1 Interview guide

Table 4 *Interview guide*

<p>INTRODUCTION</p> <p>Key components</p> <ul style="list-style-type: none"> - Thank you - Name - Purpose of interview - Confidentiality - Duration - How interview will be conducted 	<p>Thank you so much for taking the time to meet with me today. My name is Nayoung Yoon and I would like to talk to you about your experience with milk packages, with special attention to visual elements that you think or feel ecological.</p> <p>The purpose of this thesis is to understand how you experience the ecological elements presented on the milk packaging, so tell me freely how you feel about the ecological design elements, memory, emerging experiences, anything. We'll talk about each part of package, one by one.</p> <p>The interview would take around 1 hour. I will be recording the interview not to miss any of your comments. All responses will be kept confidential. Any information I include in my report will not identify you as the respondent. You'll be 'respondent A or B or etc.' on my report. You don't have to talk about anything you don't want to and you may stop the interview at any time.</p> <p>Are there any questions about what I explained?</p> <p>Interviewee's name: _____</p> <p>Date _____</p>
<p>INTERVIEW</p> <ul style="list-style-type: none"> - Open-ended questions - Use probes as needed 	<p>What comes up in your mind when you see these milk packages?</p> <p>If the participant chooses one of the packages, → Just for the convenient discussion, let's talk about this package first. (Emphasize that this interview is not for studying product preference or willingness to pay)</p> <p>OK. Let's talk about each part of visual elements on this package one by one.</p> <p>Graphical elements Let's start from graphical elements such as color, images or pictures.</p> <p>1. Can you tell me what graphics you think eco-friendly?</p> <ul style="list-style-type: none"> * Color * Image * Pictures * Any other graphics (Probes) <ul style="list-style-type: none"> - Any related experience/memory? - Any emotions?

	<ul style="list-style-type: none"> - How would other people think about this graphic (projective technique) <p>Verbal/Informational elements</p> <p>Let's focus on the texts of each package.</p> <p>1. Can you tell me what texts present eco-friendliness? (Probes)</p> <ul style="list-style-type: none"> - Any related experience/memory? - Any emotions? - How would other people think about this graphic (projective technique) <p>Structural elements</p> <p>Let's focus on the structure of each package. For example, the opening leads, the shape, touching feelings.</p> <p>1. Can you tell me what you think eco-friendly?</p> <ul style="list-style-type: none"> - Any related experience/memory? - Any emotions? - How would other people think about this graphic (projective technique) <p>Let's imagine that each package has personality. Can you describe each of them as a person? With characteristics, personalities, style, etc.?</p> <p>Other useful probes</p> <ul style="list-style-type: none"> - Would you give me an example? - Can you elaborate on that idea? - Would you explain that further? - I'm not sure I understand what you're saying. Could you explain it to me? - Is there anything else? - You mean, (my understanding)? - Why do you think _____?
<p>CLOSING</p> <p>Key components</p> <ul style="list-style-type: none"> - Additional comments - Personal information about the participant - Next steps - Thank you 	<p>Would you like to talk more about anything?</p> <p>Personal information about the participant</p> <ul style="list-style-type: none"> - Job: - Age: - Interest in ecological issues (sustainability) <p>I'll be analyzing the information you and others gave me. My contact information is +358 45 253 9188 and the email address is yoonna819@gmail.com</p> <p>You can contact me anytime when you have further questions or concerns regarding this interview.</p>

	Thank you for your time!
AFTER	<ul style="list-style-type: none">- Check recorded audio for clarity- Fill in notes

Note. Adapted and modified from *Conducting In-depth Interviews*, by C. Boyce & P. Neale, 2016, p. 11-12. Copyright 2006 by Pathfinder International.

Appendix 2 Generating initial codes

Table 5 *Code groups derived from the first round of data analysis*

No.	Code group	Groundedness
1	Ecological colors	66
2	Personal effort for sustainability	46
3	Trust in certificate	32
4	Need more evidence of companies' sustainable practices	31
5	Appreciation of company's direction to sustainability	29
6	Ecological material	25
7	Greenwashing	23
8	Supporting local product	22
9	Source of knowledge about problems of milk industry	21
10	Ecological graphics	20
11	Need more evidence of eco-friendliness of product	19
12	Eco-friendly products are expensive	18
13	Trust in Finnish product	18
14	Unecological material	18
15	Finnish culture is more aware of sustainability	17
16	Easy to trust in information on package regardless of the truth	16
17	Cow image eliciting uncomfortable emotions	15
18	Being sustainable by trying new things	13
19	Functionality of plastic	13
20	Importance of animal welfare	13
21	Preference for simple design	13
22	Trust in organic	12
23	Unecological colors: brown, gray	12
24	Aversion to over-production	11
25	Unecological graphics	11
26	Distrust in authorization	10
27	Hipster culture	10
28	Huge milk consumption in Finland	10
29	Importance of information more than graphics	10
30	Nostalgic feeling	10
31	Supporting local brand	10
32	Skepticism on public opinions shaped by milk companies	9
33	The more information, the more trust	9
34	Certificate taken for granted	8
35	Doubt about marketing phrases	8
36	Impact of education	8
37	Lack of confidence on knowledge about sustainability	8
38	Organic (Luomu) as a powerful ecological indicator	8
39	Perception created by brand: cheap	8

40	New information provokes interest in the brand	7
41	Not reading text (information) on package	7
42	Organic is healthy	7
43	Readability of package	7
44	Being sustainable by consumption	6
45	Cow image eliciting favorable emotions	6
46	Difference milk consumption between generation / groups	6
47	Eco-friendliness of Finnish product	6
48	Skepticism on company's statement (strategic goal)	6
49	Skepticism on green products	6
50	Trendy colors	6
51	Appreciation of company's financial efforts for sustainability	5
52	Aversion to green marketing	5
53	Evaluation criteria of milk	5
54	Importance of education	5
55	Little interest in sustainability of others	5
56	Needs to know what certificate means	5
57	The more expensive, the more contribution	5
58	Choosing organic for self-interest	4
59	Criticism on milk industry itself	4
60	Distrust in companies' sustainable efforts for animal welfare	4
61	Importance of company's design capacity in general	4
62	Informative colors	4
63	Love of Finnish national milk brand	4
64	Milk is not necessary	4
65	Organic is common	4
66	Small company is more ecological	4
67	Too much information is not convincing	4
68	Trust in authorized information (research, expert)	4
69	Building trust in brand	3
70	Importance of delivering consistent message within package	3
71	Non-ecological color	3
72	Perception of jargons	3
73	Traditional media as a credible source of information	3
74	Agility of small companies	2
75	Appreciation of packaging design	2
76	Being sustainable via community	2
77	Detailed information enhances trust	2
78	Finnish milk package is informative	2
79	Healthy products are expensive	2
80	Package as a representation of product eco-friendliness	2
81	Plastic is expensive	2
82	Sustainability is a trend	2
83	Sustainability taken for granted	2
84	Package design as brand identity	2

85	Distrust in sustainable packaging production	1
86	Increasing importance of sustainability in general	1

Appendix 3 Empirical findings – data excerpts

The form of code of each quote is ‘Pseudonym:#’. For instance, ‘Hanna:3’ refers to the third quote from Hanna within the relevant theme. The quote translated from Korean to English is indicated with “transl.” in the code.

Table 6 *Illustrative excerpts relative to the personalization phase of consumer responsabilization process*

Category	Theme	Excerpts from interview data
Consumer responsabilization	Take ecological problems personally (Personalization)	<p><i>Awareness of the lack of knowledge about ecological issues</i></p> <p>“I don’t really know and I haven’t researched on milk industry, so I don’t really know what kind of criteria they should meet to get the luomu (organic) certificate. But just seeing that it’s organic just gives me feeling that maybe (...) it’s better than not organic ones. (...) I don’t know if it’s better for me or better for the cows, or better for the environment, though. I don’t really know exactly what it means to have organic mark, but it just feels that it’s better.” (Riley:1)</p> <p>“You know how much they (milk companies) can play out and you never know how they treat animals and what we eat and what is the standard. I don’t have any knowledge in that area, so I don’t want to judge based on their own claim, like ‘We’re eco-friendly’.” (Marla:2)</p> <p>“I just have to admit that I don’t have enough knowledge about how cows are treated in general, what could be good treatment or bad treatment for cows.” (Mia:1)</p> <p>“Of course, I cannot know everything about sustainable things. And of course, you cannot be perfect even through you have ethics or philosophy in your life.” (Riley:2)</p> <p>“It’s (sustainability) not my expert area, so I cannot tell much.” (Dave:1)</p>
		<p><i>Emotions elicited by imageries</i></p> <p>“Cows seemingly happy and free in the field, which might trigger (good) emotions from you, thinking about the happy cows.” (Ethan:1)</p> <p>“I think they (cow images) want to say that you can drink milk with happy mind. You don’t need to worry about cows.” (Noah:1)</p> <p>“I feel uncomfortable to see cows (on package). It’s like buying beef with cow picture on it (the package). (...) Because that reminds me killing cow (...) Similarly, I don’t like this real cow pictures on the packaging.” (Riley:3)</p>

		<p>“Maybe the cow images might make them (people) uncomfortable because they remind met. (...) When I see cows, they remind me meat or beef, whatever.” (Sophia:1)</p> <p>““This one (Arla Luomu) looks pretty neutral. You don’t see the cow directly because cow image is pen-drawn. To me, this one is just neutral enough and doesn’t remind me real cows.” (Dave:2)</p> <p>“This kind of line graphic make me feel it’s not industrial and factory-made, flashy.” (Zoe:1)</p>
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Table 7 Illustrative excerpts relative to the authorization phase of consumer responsabilization process

Category	Theme	Excerpts from interview data
Consumer responsabilization	Trust in authorized information on packaging (Authorization)	<p><i>Trust in certificate</i></p> <p>“Those kinds of marks and such make it clearer to confirm the notion that it’s not just branding. They kind of confirm the eco-friendliness of product. I think other design elements are kind of things that the marketers want you to see. But these certificates act as evidence, saying this product is ‘really eco-friendly’.” (James:1)</p> <p>“It’s hard to deny the fact that it (certificate) gives impression that this product is safe enough to drink. At least, they (companies) need to go through some kind of process to get the certificate. So, it gives me trust to the product.” (Hanna:1)</p> <p>“They (Juustoportti) have the ‘Welfare quality’ certificate in the front, I think this is really good. I think because of the mark, it (milk) seems much better.” (Zoe:1)</p> <p>“I think it (certificate) does provide at least some idea of how ecological it is. Like... yes, evidence! Like promise that it is ecological. At least, it says that its’ more ecological than other products without certificate. So, when you’re considering different products, it’s much easier to go for the products with certificates.” (Ethan:1)</p> <p>“Even if many products are saying they’re ecological, I don’t have much trust in it. However, at least the company cannot use the ecological words like ‘Luomu’ unless they go through all the requirements that the company should follow. So, (...) I’d say that the product with those words might be more ecological.” (Ethan:2)</p> <p>“(seeing certificates is like) when you see somebody’s CV with a lot of certificates, then you might think ‘Oh, this person is something.’ I think my friends might think same as I do.” (Mia:1)</p> <p>“(When I see certificates), I think it’s (having certificate is) cool. When I see many marks on the package, I think ‘Yes, at least they got approved from somewhere.’ So, they (companies) might be better than standard. And I trust in the marks.” (Sophia:1)</p> <p>“Looking small sign (mark or certificate), they kind of give you and idea that ok, this is something important to note there and kind of gives you trustworthiness. At least, the image of it.” (Emily:1)</p> <p>“There’s also another certificate, the green one in the back. I’ve never seen it before but it looks good. It makes it (the product) even better.” (Emily:2)</p>
		<p><i>Trust in information on packaging regardless of the fact</i></p> <p>“Thinking about the package, when the companies write about the product, they wouldn’t lie about the</p>

	<p>information. I'd trust the texts on the package rather than some random posts in the Internet." (Mia:2)</p> <p>"I trust pretty easily these kinds of things (certificates, verbal information about sustainable features such as organic). (...) When I read this, then I just think 'OK, this is good and I'm going to buy it.' That's like... great even if I don't know whether that's true or not. And the company could have said anything, though. Those kinds of things really give you more trustworthiness towards the product, I guess." (Emily:3)</p> <p>"I think people just want to trust (in the information) because they don't know about the real truth of the production. Especially, among my friends, they're willing to pay more for the better products." (Marla:1)</p> <p>"Of course, I can go check what kind of facilities the companies use to product organic things. But I just have to trust what kind of process they go through (based on the information on packaging)." (Dave:1)</p> <p>"I don't think the information is bullshit. They wouldn't lie about the facts. I don't think that every milk producer would lie anything to customers. So, of course, I believe what they're trying to say." (Dave:2)</p> <hr/> <p><i>Trust in Finnish origin</i></p> <p>"I fairly trust Finnish products. (...) Then my job is just to trust them and support those companies or products." (Dave:3)</p> <p>"Pirkka Luomu (package) also has the 'made in Finland, Suomesta' but the reason might be the brand is regarded cheap brand, so people might be suspicious about the ingredients." (Noah:1)</p> <p>"You can see only paper milk packages (in Finland). But in Korea, I used to see 1+1 products which consist of two milk packages put in a plastic bag. I really don't like that kind of package. Here, I think the packages are more sustainable or there're more regulations about sustainability." (Sophia:2)</p> <p>"I think the 'Made in Finland' mark means trust." (Marla:2)</p> <p>"Product with this mark, 'Made in Finland', with swan in the mark, is more trustworthy. When I buy products such as jam, there's this kind of mark with the flag that indicates that the berries are from Finland. Then I choose products with the mark because they're more trustworthy." (Sophia:3)</p> <p>"For example, I don't want to compare Finland to other countries, but let's say, for example, in Africa, they don't have good facilities as in Finland. And they use 'organic', I mean if they use 'organic' for packages of any product, I don't think that I can fully trust they're really organic. I would have some questions about whether they really didn't use any of chemical fertilizer or somethings like that. I can't really trust. But I fairly trust in Finnish products." (Dave:4)</p>
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		<p>“Thinking about the legislation, stricter than other countries. It’s just much stricter in Finland, so considering the fact how cows are treated, I already feel like Finnish brands are more ecological than other countries. (...) Moreover, considering the shipping and logistics, products from Finland is much more ecological and fresher. You can’t use gene-modified product or antibiotics here in Finland. So, (I trust in Finnish origin).” (Ethan:3)</p> <p>“OK, let’s say when comparing with German or Polish milk, they use more antibiotics there. I don’t know whether it’s directly related to ecological stuff but I know that it’s not good stuff. So, I kind of trust the Finnish product. Well, I’ve always used the Finnish product.” (Noah:2)</p> <p>“The criteria and requirements or restrictions for milk are quite strict in Finland. So, I don’t have any doubt on the quality of milk (from Finland).” (Riley:1)</p>
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Table 8 Illustrative excerpts relative to the opposition to the authorization phase of consumer responsabilization process

Category	Theme	Excerpts from interview data
consumer responsabilization	Distrust in information presented on packaging (Opposition to authorization)	<p><i>Concerns about greenwashing</i></p> <p>“(Let’s see) what is said on the left side of Arla Luomu, that’s only words. Anyone can say anything about their product but you don’t really know what it actually is and (...) whether it’s even true because there’s no evidence and it’s like marketing. Even though it’s marketing, people can easily be fooled just because they think it supposed to be organic and sustainable, so you feel that this company wants to be trustworthy (...) So, you don’t question what they’re saying. I think my company is using that. For example, we’re selling a drink, called "Honest". (...) It’s kind of a label the product has there. And people just buy it a lot. A lot! Only because it says "Honest" and it looks trustworthy. (...) You know what? I heard that it’s actually one of Coca-Cola’s brands. When I heard that, (...) I got different feelings, all of a sudden. (...) Like you’re not trusting them (the manufacturer) anymore. You’re not trusting the product that much anymore. (...) It’s funny how even one word can be so powerful.</p> <p><i>Interviewer:</i> There’s no ecological factor there? Just the name sounds credible?</p> <p>No, it’s full of sugar! It’s like drinking Coca-Cola. Not exactly like that but it still feels like... not 'Honest' product. Or being sustainable or something.</p> <p><i>Interviewer:</i> OK. You said that it’s really easy to fool people with some words seemingly ecological. Can you explain more? Especially, with this topic, sustainability, (people got fooled easily). I think when you talk about organic or sustainable or whatever, people don’t really question much what is offered to them. If there’s the sign of organic or locally produced, people just think 'OK, yes, it’s great. Let’s take this.' (...) People got fooled pretty easily. The company started to realize that they need to start using it.” (Emily:1)</p> <p>“It’s (Sustainability) kind of trend. All of these (efforts to be sustainable) have been known for ages but companies started to change themselves since it (sustainability) became a business, like making money for the companies. Come on. It’s quite frustrating.” (Ethan:1)</p> <p>“I just don’t trust the green anymore. It doesn’t mean anything. There have been so many products that used green even if they don’t have any text explaining they’re really ecological. (...) It’s so common and it’s so easy to cheat.” (Noah:1)</p> <p>“I think Luomu is buzzword of the companies that want to make the product seem organic and so on.” (James:1)</p> <p>“We are all brain-washed. Green is always used in eco-friendly context all the time. (...) Every milk package has green, like here.” (Marla:1)</p> <p>“Like this one (Juustoportti), they’re just saying that they’re ‘compensating’ carbon footprint. But I think it’s basically just</p>

		<p>green washing. Product itself (production of milk) is still not ecological in my perspective. But they're just saying..." (Ethan:2)</p> <hr/> <p><i>Distrust in authorization</i></p> <p>"A lot of brands just use it (animal welfare mark). And I don't know what it means. For example, are the cows free roaming for the whole day? Or just half an hour? (...) I just think that this is the term that a lot of products use. (...) I just can't be sure (about the mark)." (Zoe:1)</p> <p>"I think they (companies) want to present 'our cows are okay to provide their milk happily to people.' through organic mark. That is not true. I don't believe in the production.</p> <p><i>Interviewer:</i> Can you tell me more about the production? Marla: For example, when it comes to eggs, I heard from my relatives and parents, who run a farm, saying that getting a 'Luomu mark' is super easy. Slightly different processing is enough to get that mark, so Luomu actually doesn't mean anything. (...) I basically don't believe in everything about organic. I think people also don't believe as well like I don't. But they just want to trust because they don't know about the real truth of the production." (Marla:2)</p> <hr/> <p><i>Distrust in public norms</i></p> <p>"I got to learn that (...) dairy or meat industries (...) could be very political and they also lobby a lot to make citizens to think they need dairy or meat products more than they need." (Riley:1)</p> <p>"This company, called Valio, (...) has very good marketing department. It's a little bit crazy how many people drink milk here in Finland. (...) They were saying that milk makes your bones a lot stronger and you can get Vitamin D and all these kinds of things. So, that's why my mother always said "You need to drink this (milk)."" (Emily:2)</p> <p>"It's interesting that in the documentary, they have short video clips explaining why the milk production is wrong or what's wrong with it. However, I found out this video made about 10 years ago, targeting children, which talked about the farming and milk production. And they're saying, "cows have to be pregnant so that we can get milk and they are doing that every year." And they're explaining all the facts that were also used in the documentary (that criticized the milk production). But in the children's video, it was saying that "It's totally normal (for cow). It's cow's job. It's okay!" That made me feel that people are really taught to believe that it's normal and good.</p> <p><i>Interviewer:</i> So, you think the people's attitude depends on how they're educated? Yes, exactly.(...) I think it's really interesting to see that they're dealing with the same facts that cows need to be pregnant all the time to produce milk and they do that every year. And by the end, they'd be turned to beef. And all of them is depicted as it's normal and good for people." (Zoe:2)</p>
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Request for more evidence on eco-friendliness of product and packaging

“Here (Juustoportti) is quite prominent that it says that they’re compensating the whole carbon footprint. I think (...) it’s good because they are doing something else right now, compared to this (Valio), saying “in 15 years, we can do that (Carbon Footprint zero 2035)” (...) Why on earth does it take 15 years to make (change)? (Noah:2)

“What does it mean? I need to know whether cows eat organic haze or whatever organic things, or whether production itself is organic or it is good for environment, something like this specific information or knowledge. I think customers might have trust in mark but they don’t have that much deeper knowledge or understanding of the information of what exactly organic means in milk.” (Sophia:1)

“Consumers can never know how milk is processed without any specific information or evidence. So, I think it’s better to provide more information about the organic milk.” (Hanna:1)

“This packaging (Valio Luomu) is like a salespaerson who pushes you to buy more because it promotes other product on the side of this packaging. It pushed you stuff but doesn’t have anything to tell you because it doesn’t show any information about the product on the packaging. It’d ask more questions. It’s like an annoying tele-marketer, like from insurance company, pushing you some products you don’t want. Go away! Don’t talk to me!” (Zoe:3)

“It’s (having trust is) more about the facts and actions they’re (companies are) doing. Not just saying, “Ok, we’re compensating”. Just saying is not enough. (Ethan:3)

“(I need to know) what kind of environment cows have or what kind of work ethics the company has. Rather than the information about the brand or its philosophy. (...) Like how they product milk, whether they’re going towards being more environment-friendly way, or ethical issues. That would be quite interesting and informative things I want to know.” (Riley:2)

“I think it’s not so much about the packaging but it’s more about I hear from media. I think the traditional media is quite important, rather than social media. I think whenever I read very long article which was written by someone who actually dived deep into the topic, as least they tried to justify what they had found and they hopefully have some good reasons or findings that could be the base of their arguments like judgement. It’s easier to believe. (...) Still, they are one of the most trustworthy sources. So, it’s quite difficult to be convinced only through the packaging.” (Noah:3)

“With friends, we also talk about good brands. In Finland, there’s Sustainable Brand Index. I know that Valio has been top for many years. So, it gives me good information. When I check Sustainable Index each year, sometimes I didn’t know that some brands are actually sustainable. Then I read more about what factors they met to achieve sustainability in their business. So, I think it gives a lot of information for me to

		check those things. So, if you know certain sustainable brands, you can trust them and go for something.” (Riley:3)
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Table 9 Illustrative excerpts relative to the capabilization phase of consumer responsabilization process

Category	Theme	Excerpts from interview data
Consumer responsabilization	<p>Capabilize responsible consumption through packaging design (Capabilization)</p>	<p><i>Green consumption is the basic step for sustainability</i></p> <p>“When you're interested in these kinds of things, then you don't have time to go out and save the whole world, you know, then that's (consuming sustainable product is) the thing you can do on everyday basis, trying to think what you buy. That's why I like to think about these things (how to contribute to sustainability). Because I don't really go out there and do anything else for the world. So, that's the smallest thing that I can do.” (Emily:1)</p> <p>“It (The information indicating small-sized company) gives me a feeling that they will be more willing to develop things. Because if it's from big companies like Valio or Arla, they might continually try to get better quality. But it feels like smaller companies are quicker and more up to change (...) their things or upgrading things. So, I would like to support them more.” (Riley:1)</p> <p>“Especially this one (Valio), the problem is that they have not done anything yet. (...) Of course, it's good that they have plan but if I buy this one, does it make them go for it (sustainability) even more? Or should I buy something else to force them move faster?” (Noah:1)</p>
		<p><i>Packaging design capabilizes green consumption</i></p> <p>“My parents buy very expensive milk which is 10 euros per bottle, something like that. And the milk is from free-raised cows living somewhere in a mountain. But the package is plastic! I thought that it's really contradictory! It's such eco-friendly milk but it's in a plastic bottle! (...) It's really weird. The bottle as a package doesn't deliver the message at all. It looks nice but whenever I see the plastic... I just always thought that they're claiming they're eco-friendly but maybe not (eco-friendly).” (Sophia:1)</p> <p>“Compare to the all the other packages that have no plastic at all, it's kind of odd to have the plastic with the 'carbon footprint goal'.”(James:1)</p> <p>“I don't like it (Valio Vaapaanlehmän maito) even if it provides lots of information. It also has many visual elements, which makes this package look a bit complicated. (...). It's talkative and visually loud.” (Hanna:1)</p> <p>“The thing I'm not into is too much information. This means that when they (packages) try to give all the information to the customer, even if you don't need that much. They're just trying to give information like 'Oh, we have this. We have that.' (...) Maybe like a few important things would be quite enough. (...) Like help your (customers') understanding. It's better than just having all those marks.” (Riley:1)</p>

		<p>“I think high quality packaging means they (companies) put a lot of budget on it and this means in turn they put a lot of budget in product. So, in that sense, it (packaging quality) might indicate the quality of product.” (Marla:1)</p> <p>“I think it could have been better for packaging of Valio Vapaanlehmän milk to have design of Valio Luomu because the packaging of Valio Luomu is more understandable and straight-forward. Also, it looks more trustworthy. The packaging design having the imagery of green field looks more ecological.” (Ava:1:transl.)</p>
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Table 10 *Illustrative excerpts relative to the transformation phase of consumer responsabilization process*

Category	Theme	Excerpts from interview data
Consumer responsabilization	Seek methods for eco-friendly self-conduct (Transformation)	<p><i>Searching for more information through packaging</i></p> <p>“Ok, they (Valio Vapaan Lehmän milk packaging) have ‘read more here’. (...) For me, I’d like to know more because this (information on the package) raises questions more. (...) (scanned the QR code and went to the website providing more information)</p> <p>So, this is like sustainable milk production. Carbon neutral until 2035. OK, this is nice. They’re providing information where the carbon emission comes from. Cows, food fed to cows, other areas... and the measurement for it. And they’re providing the reference. Oh, here’s the researcher thing. I think this explains well. (...) This researcher thing gives me more trustworthy information.” (Zoe:1)</p> <p>“I think it’s (reading information on packaging is) quite cool because you can read about the product and organic things, and then you can get to know something, for example, what companies are doing some stuff (for the environment). For example, I’ve never noticed something like I can really help to reduce Co2 through this product (Valio Vapaan Lehmän milk).” (Sophia:1)</p> <p>“As a consumer, I think it’s (reading information on packaging is) really good because I feel like I’m contributing to the society. And also, before, I probably didn’t have much knowledge about sustainability and how much I was harming environment by, for example, purchasing plastic toothbrush. But now, I get to know about it. And as I see the product, I also learn about the sustainability things.” (Mia:1)</p>
		<p><i>Trying new things as a start of behavioral change</i></p> <p>“In Finland, there is a campaign, called “Lihaton Lokkakuu”, meaning meat-less October. It’s a campaign started by two famous Finnish celebrities. (...) It’s (This campaign is) quite famous and beloved by Finns. The celebrities are documentary producers, making “Mad Ventures” and “Doc Ventures” (...) They’re the stars. They became so beloved and famous here and they’ve given a lot of influence to the society. (...) As far as I know, I don’t know it could be wrong, I heard that they started this campaign, “Lihaton Lokkakuu”, to just give some awareness that everybody can try one month to reduce meat consumption. When it becomes October, not all of my friends, but some of friends do that. I can hear about “Lihaton Lokkakuu”, for example, when we go out for eating, they ordered some vegetarian or vegan menu. So, I thought, ‘Well, it’s pretty interesting campaign.’ And I want to be part of it. I don’t think I’ve never been completely meatless during October but at least, I become aware of my choices and try to minimize a lot. And then after one month, I kind of became to</p>

		<p>think, 'Well, actually I like this diet. I'm more comfortable with my stomach.' And then I try to keep this diet like reducing meat after the campaign period.</p> <p>(...)</p> <p>I think it's super smart way to change people's behavior. Because usually, when you want to change, you could be quite afraid of trying. Because you're sticking to your existing behavior or daily choices. (...) It could be actually one week. When you think about not buying meat for one week, then you get to be so creative, thinking other options. (..) It gives you a chance to think about other things. You can realize that you can actually enjoy other options without meat. It's kind of giving opportunity to have some awareness.</p> <p>(...)</p> <p>I like it when company tries something new or something else. Like having big text is also nice. (...) I think normally in Finland, milk cartons look pretty functional. They (Milk companies) want to give all the information they needed and in a pretty similar way. Also, most of them use all the bright colors to look fresh. (...) I thought that it's (Package of Juustoportti) super weird to use just black and white (because it's different from typical Finnish milk package). But I think this one (J) did really nice try. Like with the images, it's like just black and white and then emphasizes texts with the background colors. (...) I think this is better design than any other packages, for now. (...) Packaging-wise, I can try different things. When I see some interesting packages, I want to try them. But when I try and then if the milk is not as good as the one that I've usually had, then I just try but I don't really keep buying them." (Riley:1)</p>
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Table 11 *Illustrative excerpts relative to popular culture*

Category	Theme	Excerpts from interview data
Consumer culture	Popular culture as a desired lifestyle	<p><i>Cool-looking design elements remind hipster and hippie culture</i></p> <p>“I think there are so many hipster-ish culture as a background (of sustainable products). They’re really related to sustainability. It’s kind of cool stuff.” (Marla:1)</p> <p>“This one (Juustoportti) is hipster. Because it has this kind of cool font, I think. I think this is simpler, like it’s not stuffed as this one (Valio Vapaanlehmän milk). So, it seems like who cares about look quite a lot.” (Sophia:1)</p> <p>“Arla Lumu might be the modern hippie. Because the brown color, (the use of which) recently started, and the different fonts and images are saying ‘home brewed’ type. (James:1)</p>
		<p><i>Desired modern ecological way of life</i></p> <p>“They're (Hipsters are) sustainable. (...) They're really conscious about what they buy. They think that every purchasing decision for them is an opportunity to use their power to contribute to the direction they want to go to. They love nature, they're fighting against global warming, (...) (They're) really conscious about animal health, nature. (...) They don't really go for the fast fashion when they consume food. (...) They're ready to go to the extremes to kind of like to follow their own values and own views of the world.” (Emily:1)</p> <p>“Arla Luomu is eco-first person. Environmentalist. I like the soft color, feeling better. Because of the soft color, it seems Also, this package design is quite different (from others), so it looks like a hipster.” (Ethan:1)</p> <p>“Arla Luomu is maybe hippie, vegan type of person. (...) I mean, it looks very ecological because of the color and the rugged surface.” (Zoe:1)</p>

Table 12 *Illustrative excerpts relative to materialism*

Category	Theme	Excerpts from interview data
Consumer culture	Materialism	<p><i>Purchasing eco-friendly product for satiating self-interest rather than fulfilling social responsibility</i></p> <p>“I think the reason for that (ecological consumption) is more about health issues rather than motivation to being sustainable for the nature. (...) I think I make healthier decision for myself. For me, it’s kind of long-term investment for my health in the future. (...) For me, buying organic is more like selfish choice for my health.” (Mia:1)</p> <p>“I think it’s (the sustainability of milk production) same as the chicken. When they are treated very badly in their lives, then they’re probably producing bad quality milk or eggs. So, that’s what I think basically when I choose milk. I’m thinking whether this milk is from happy cow... freely moving around grass... Actually, moving freely is not necessary but I’d prefer milk from cows which are treated better than other cows who probably eat very shitty stuff.” (Sophia:1)</p> <p>“They (people) don’t think about sustainability that much, but they think about their health so they might choose more expensive looking ones (eco-friendly product)” (Sophia:2)</p> <p>“I purchase organic product because I think ‘I’ll be healthy when I drink this.’ The word ‘organic’ makes me think like that.” (Ava:1:transl.)</p> <p>“I think it’s (buying organic milk) is also about health. For example, when you think about milk and there are a lot of people saying that cows are fed with too much antibiotics... So, I think about my health when buying organic milk.” (Emily:1)</p>
		<p><i>Eco-friendly consumption for satisfying the desire for material goods</i></p> <p>“I feel happy and proud because firstly, I’m doing good for nature and secondly, that means that I have some money to contribute myself for nature. (...) I was just trying to save money (in the past) so, I just bought the cheapest one. But nowadays, I can spare some money for the earth and me. That feels quite good.” (Sophia:3)</p> <p>“When I see some people who always buy organic stuff, I think ‘well, they have some money for that. Good for them.” (Sophia:4)</p> <p>“It’s (sustainable product) a little bit more expensive, so I don’t always have the ‘money’ but then it’s also kind of luxury thing, in a way. So, when you go and buy organic stuff like that then you feel more special that day. Or then you feel like you’re being healthier or cleaner or doing a better decision for yourself as well.” (Emily:2)</p> <p>“I think this one (Arla luomu) looks more design-ish. I mean, the company (Arla) used (hand-drawn style of) illustration instead of typical cow picture. I guess that is probably</p>

		<p>designed by professionals. So, I think this company really cares about not only product quality but design, which might mean this milk is a bit more expensive. But I think the company cares about milk quality when it cares about package design.” (Ava:1:transl.)</p> <p>“Sustainable products are a bit expensive compared to mega-produced products from factories. So it (buying sustainable products) really depends on your budget and your financial status as well.” (Marla:1)</p> <p>“If I have more budget, then I’d buy more sustainable product.” (Marla:2)</p> <p>“When I was a young student, I didn’t care much about this kind of thing (eco-friendly consumption) because I just bought cheap products.” (Dave:1)</p> <p>“For some people, the organic text might mean it’s more expensive product and it is true.” (Dave:2)</p> <hr/> <p><i>Product eco-friendliness means companies’ investment</i></p> <p>“I watched ‘Chef’s Table’ and there was an episode of a chef who is also a butcher. He takes care of his cows so nicely like making them freely roaming around the grass. (...) He knows all the names of cows and even prays for cow when killing them. (...) He became famous of the taste of the beef. I was really amazed when watching that TV show. (...) I think people might buy milk from happy cow as a way of respecting the producer. Because the producers need a lot of effort such as financial investment, I respect the producer. Also, I saw a video on Instagram about happy cows which were pastured to the free land for the first time in their lives. They jumped around with joy and I was really moved when I watched the video. To realize those kinds of things, producers should put a lot of effort. So, people might pay for the producer to promote the sustainable acts.” (Marla:3)</p> <p>“It’s (information on packaging is) talking about the packaging, saying how it makes Finland better. (...) it shows the quantitative numbers about the eco-friendly feature of the product.” (James:1)</p> <p>“I think more money on packaging might mean more money on product. (...) I don’t know the real figure but I just feel that they (companies) put some efforts. They probably don’t use the same factory as others.” (Marla:4)</p>
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Table 13 *Illustrative excerpts relative to Finnish milk culture*

Category	Theme	Excerpts from interview data
Consumer culture	Finnish milk culture	<p><i>Huge milk consumption with the affection for Finnish brands</i></p> <p>“Finnish people drink milk a lot. I remember when my family went to a grocery store when I was young. We had like 20 liters of milk each time when we went to the grocery store. We brought that amount of milk and drank it at home. And you have it at every meal. You can always have milk. For example, during lunch, dinner, breakfast, everything. I've never seen a country where people drink that much of cow's milk.” (Emily:1)</p> <p>“It seems like it's (milk is) a big part of Finnish culture because in elementary school, a lot of people drink milk. Thinking about my school life back then, everyone drank milk more than water, for example during lunch. I even remember that someone asked me why I didn't drink milk when I drank only water. I think people drink at least one glass of milk during each meal.” (Ethan:1)</p> <p>“Well, it was weird someone who didn't drink milk at school. So, it's culturally rooted... I think it was more common to drink milk than water. At least, I've never drank water at school. Just a glass of milk at lunch. It's kind of Finnish culture.” (Noah:1)</p> <p>“People are so used to drink cappuchino, you know, milk-based coffee with normal milk. Then they would think that maybe soy milk or oat milk wouldn't taste as good as normal one. So, they don't really dare to try.” (Riley:1)</p> <p>“I think those who really like drinking milk are purely following habit. Especially, in Finland, people start to drink milk from youth and school time, even in army, they drink a lot of milk.” (Dave:1)</p> <p>“The one (advertisement) I remember is the one tried to trigger some kind of nostalgic emotion and feelings connect to milk. That has famous athletes drinking milk. Very Finnish way. Interviewer: What was the message? They might have wanted to promote the healthy benefits of the milk through athletes. I read a paper, saying it's quite weird to think about how much Finnish people drink milk. I'm not sure about any other countries, though.” (Ethan:2)</p> <p>“My mother always said to me that we should always buy products from Finland, not from some far away countries like Spain, because Finnish product is more sustainable. (...) The Valio logo is well recognized in Finland. I think for a long time, people might think that Valio product is locally produced when they buy Valio product. That itself has some kind of value in it. People recognize it.” (James:1)</p> <p>“I also think Finnish people used to use Finnish products because of feeling of patriotism there. Like 'I love my country. I want to contribute to my country.', which is really good.” (Zoe:1)</p>

		<p>“The brand name is Juustoportti, which is translated to ‘Cheese Gate’. It sounds like a small town or neighbor town, or something like that. It also sounds Finnish, so you can clearly see that it tries to be authentic.” (Ethan:3)</p> <hr/> <p><i>Changing milk consumption behavior in different social groups</i></p> <p>“My boyfriend’s mom (Finnish) said that she always buys full-fatted milk and cream. And she uses it a lot. (...) I think it’s so Finnish. (...) I think she would choose Valio or Arla products. Maybe Valio because Valio is Finnish company. I think Arla is Swedish. (...) But the red one with full fat. Because she cares about taste.” (Sophia:1)</p> <p>“The grandma or grandpa might not buy this Swedish brand. Even if it doesn’t seem Swedish. There was a discussion about Arla milk some years ago. She remembers that. (...) Valio milk has always been Finnish and the Arla milk used to be called ‘Ingman’ which was the Finnish company and Arla (Swedish) bought the Finnish company. And there was a huge discussion like “we can’t drink Swedish milk” for some reasons. So, it might be the reason why there’s “Suomesta (Made in Finland)” text here. This one should say while others don’t have to.” (Noah:2)</p> <p>“They (My colleagues) always drink milk. In our workplace, there’re oat milk and milk for coffee. I always put oat milk but my colleagues always put cow milk. I think that they think the taste of milk is better. And some of them drink milk during lunch. I don’t know they think about sustainability. They just drink milk. And when we talked about health stuff, they said that there’s a lot of research showing milk is good for health. (...) Maybe there’s difference between groups. For example, most of my colleagues are developers. They don’t care about drinking milk. But then, my designer colleagues, they mostly drink plant-based milk. Also, my friends from design school, they don’t drink milk and drink only plant-based milk. (...) Also, my boyfriend is also drink plant-based milk. He said “Yes, maybe milk tastes better but this (plant-based milk) is better.” (Sophia:2)</p> <p>“I think designers and more educated people like university students drink more plant-based milk. Like people who already read about the eco-friendly things. If you don’t know about it, you probably wouldn’t even think about it.” (Sophia:3)</p>
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