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# CUSTOMER EXPERIENCE INFLUENCING SUSTAINABLE PURCHASE INTENTION

## The case of flexible packaging

Master of Science Thesis
Faculty of Management and Business
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# ABSTRACT

Emma Nykänen: Customer experience influencing sustainable purchase intention: The case of flexible packaging
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As environmental sustainability is becoming an increasingly significant value among consumers, companies are required to produce more sustainable goods. The packaging industry, specifically, is highly dependent on consumer perceptions, as consumers choose more sustainable alternatives. This phenomenon of sustainable purchase intentions can be studied with customer experience and it's five dimensions – sensory, cognitive, affective, social, and behavioral. In addition to the experiential view, there are underlying personal influences, consumer contingencies, that may influence the experience and purchase intention. The objective of this study is to find out how customer experience influences consumers' purchase intention in the case of sustainable flexible packaging. The three research bases are: (1) What do consumers experience as sustainable in packaging? (2) How do the dimensions of customer experience influence sustainable purchase intention? (3) How does customer experience influence the path from consumer contingencies to sustainable purchase intention?

The research follows an abductive design. The case of wood fiber -based flexible packaging is selected, because of its sustainable nature and lack of research in the context of sustainability. Preliminary interviews are conducted in order to achieve a comprehensive view on the case packaging, company, and industry. After this, an a priori framework is formed based on literature and the preliminary interviews. To generate answers to the research questions, consumer interviews are conducted in focus groups. The consumer data is analysed using a qualitative data analysis software. The data on consumer contingencies is further analysed using a clustering method.

The findings show that consumers experience sustainable packaging in relation to their own variables, as well as packaging attributes. The packaging attributes that increase perceived sustainability are experienced through the sensory, cognitive, and affective dimensions and include brown colour, papery feel, and unambiguous material. The consumer variables relating to behavioral and social experience include sorting and purchasing habits, and response to social factors.

All five experience dimensions influence the purchase intention of sustainable packaging. The cognitive dimension is the most prominent, as it's the most frequent to influence purchase intention. This influence is mostly positive, as it most often leads to choosing the sustainable alternative. The sensory and affective dimensions also show mostly positive influences. The social and behavioral dimensions also show negative influences on sustainable purchase intention.

The cluster analysis compiles three distinct contingency clusters, that have varying significance of sustainability ingrained in their contingences. The findings show that consumers with more sustainability present in their contingencies tend to experience cognitively, and choose more sustainable alternatives. With the consumers that show a smaller significance of sustainability in their contingencies, the experience tends to be more diverse including different dimensions, and the choices more split between sustainable and non-sustainable alternatives.

This research produces academic contributions broadening existing literature. The literature on customer experience is reinforced and connected to consumer view and sustainability. The relationship on customer experience and customer value is also clarified. In addition, the literature on sustainable packaging is reinforced and connected to customer experience. The managerial contributions support the product development of sustainable packaging. Based on the findings, implications for future research include further testing the a priori framework, as well as further researching consumer contingencies and customer experience dimensions in different contexts.

Keywords: customer experience, customer value, purchase intention, sustainable packaging, flexible packaging

# TIIVISTELMÄ

Emma Nykänen: Asiakaskokemuksen vaikutus kestävään ostotarkoitukseen: Joustopakkausten tapaustutkimus
Diplomityö
Tampereen yliopisto
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Ympäristöllisen kestävyyden ollessa kasvava arvo kuluttajien kesken, yrityksiin kohdistuu paine tuottaa kestävämpiä tuotteita. Erityisesti pakkaustoimiala on hyvin riippuvainen kuluttajien käsityksistä kuluttajien tehdessä kestävämpiä valintoja. Tätä kestävän ostotarkoituksen ilmiötä voidaan tutkia asiakaskokemuksen ja sen viiden dimension – sensorinen, kognitiivinen, affektiivinen, sosiaalinen, ja behavioraalinen – avulla. Kokemuksellisen näkökulman lisäksi kuluttajien ostotarkoitukseen mahdollisesti vaikuttaa piilevät henkilökohtaiset vaikuttimet, kuluttajakontingenssit. Tämän tutkimuksen tarkoituksena on selvittää, miten asiakaskokemus vaikuttaa kuluttajien ostointentioon kestävien joustopakkausten tapauksessa. Tutkimuksen kolme näkökulmaa ovat (1) Mitä kuluttajat pitävät pakkauksissa kestävänä? (2) Miten asiakaskokemuksen dimensiot vaikuttavat kestävään ostotarkoitukseen? (3) Miten asiakaskokemus vaikuttaa polkuun kuluttajakontingensseista kestävään ostoaikeeseen?

Tämä tutkimus noudattaa abduktiivista prosessia. Puukuitupohjaisen joustopakkauksen tapaus valikoituu tutkimukseen sen kestävyyden sekä kirjallisuuden puutteiden vuoksi: puukuitupakkauksia ei ole tutkittu kestävyyden näkökulmasta. Jotta tutkimuksen pakkauksesta, yrityksestä ja toimialasta syntyy kokonaisvaltainen kuva, suoritetaan preliminaariset haastattelut. Tämän jälkeen muodostetaan a priori viitekehys kirjallisuuden ja preliminaaristen haastattelujen perusteella. Tutkimuskysymyksiin vastataan kuluttajahaastatteluiden avulla, jotka suoritetaan fokusryhmähaastatteluina. Kuluttajadataa analysoidaan kvalitatiivisen datan analysointiohjelmalla. Kuluttajakontingenssidataa analysoidaan edelleen klusteroimalla.

Tulokset osoittavat, että kuluttajien kokemus kestävissä pakkauksissa riippuu heidän omista muuttujistaan sekä pakkausten ominaisuuksista. Koettua kestävyyttä lisäävät pakkauksien ominaisuudet koetaan sensorisen, kognitiivisen ja affektiivisen dimension kautta, ja niihin kuuluvat ruskea väri, paperimainen tuntu ja yksiselitteinen materiaali. Behavioraaliseen ja sosiaaliseen kokemukseen liittyviä kuluttajamuuttujia ovat lajittelu- ja ostotottumukset sekä reaktiot sosiaalisiin tekijöihin.

Kaikki viisi kokemusdimensiota vaikuttavat kestävän pakkauksen ostotarkoitukseen. Kognitiivinen ulottuvuus on merkittävin, sillä se vaikuttaa ostotarkoitukseen useimmin. Tämä vaikutus on enimmäkseen positiivinen, koska se johtaa useimmiten kestävän vaihtoehdon valintaan. Sensoriset ja affektiiviset ulottuvuudet osoittavat myös enimmäkseen positiivisia vaikutuksia. Sosiaalinen ja behavioraalinen dimensio osoittavat myös negatiivisia vaikutuksia kestävään ostotarkoitukseen.

Klusterianalyysi tuottaa kolme erillistä kontingenssiklusteria, joiden merkitys kestävyyttä kohti vaihtelee. Tulokset osoittavat, että kuluttajilla, joilla kestävyys on vahvasti läsnä kontingensseissa, on tapana kokea kognitiivisesti ja valita kestävämpiä vaihtoehtoja. Kuluttajilla, joiden kestävyyden merkitys on vähäisempi koningensseissa, kokemus on yleensä monipuolisempi sisältäen eri dimensioita, ja valinnat jakautuvat enemmän kestävien ja ei-kestävien vaihtoehtojen välillä.

Tämä tutkimus tuottaa akateemisia kontribuutioita laajentamalla olemassa olevaa kirjallisuutta. Asiakaskokemuksen kirjallisuutta vahvistetaan ja liitetään kuluttajanäkemykseen ja kestävyyteen. Myös asiakaskokemuksen ja asiakasarvon suhdetta selkeytetään. Lisäksi kestävien pakkausten kirjallisuutta vahvistetaan ja yhdistetään asiakaskokemukseen. Yrityspuolen kontribuutiot tukevat kestävien pakkausten tuotekehitystä. Tulosten perusteella tulevaisuuden tutkimuskohteita ovat a priori -viitekehyksen testaaminen sekä kuluttajien kontingenssien ja asiakaskokemuksen dimensioiden lisätutkimus eri konteksteissa.

Avainsanat: asiakaskokemus, asiakasarvo, ostotarkoitus, kestävä pakkaus, joustopakkaus

# PREFACE

This thesis, in all of its workload, has been the most taughtful and encouraging experience of my academic career. After six long years of studying, it has also confirmed the fact that this university and my collagues here will still not be rid of be.

I would like to thank my supervisors Leena and Mikko for investing their time into my thesis and inspiring me during this as well as future work. A big thank you to the people from the case company that have given me the opportunity to study these subjects and have guided this work. Finally, I would like to thank my friends and family for emotional support, as academic support would be too much to ask.

Olipahan työmaa.

Tampere, 23rd May 2024

Emma Nykänen

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# LIST OF SYMBOLS AND ABBREVIATIONS

| | |
|---|---|
| B2B | Business-to-business |
| B2C | Business-to-consumer |
| CRM | Customer relationship management |
| EU | European Union |
| LOHAS | Lifestyle of health and sustainability |
| PPWD | Packaging and Packaging Waste Directive |

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# 1. INTRODUCTION

## 1.1 Background of the study

In recent years, sustainability has been an increasingly critical value among companies and consumers. Organizations are fighting climate change and waste build-up by turning their focus on sustainable production, as consumers are making more sustainable product choices. How consumers decide to purchase products is, thus, a critical focus for sustainability research. Sustainable purchase intentions have previously been studied in the contexts of customer value (e.g., Hsu et al. 2017; Confente et al. 2020; Zhuang et al. 2021; Ahmed et al. 2022) and sustainable packaging (e.g., Rokka & Uusitalo 2008; Martinho et al. 2015; Prakash & Pathak 2017; Ketelsen et al. 2020; Moorthy et al. 2021; Zhang et al. 2022; Macht et al. 2023). For example, consumer attitudes (e.g. Choi & Johnson 2019; Liu et al. 2020; Ahmed et al. 2022) and environmental knowledge (Choi & Johnson 2019; Rausch & Kopplin 2021) have been studied to influence sustainable purchase intention. The consumer view on sustainable purchasing, however, lacks research in the context of customer experience. According to Ta et al. (2022), customer experience and its dimensional form have a critical role in sustainable purchasing, as consumers make decisions largely based on experience. The aim of this thesis is to establish the relationships between customer experience, sustainable purchase intention, and sustainable packaging, and form a cohesive model of the three.

According to the World Bank (2023), around 2.01 billion tonnes of municipal solid waste is generated annually, and the amount is expected to grow to 3.40 billion tonnes by 2050. Of the total amount, at least 33 % is not managed environmentally sustainably (The World Bank 2023). The European Commission (2023b) reports, that the average European generates five tonnes of waste annually, 38 % of which is recycled. The increase in waste build-up is caused by the rise in global population, urbanization, economic growth, and consumer shopping habits (Statista 2023), which makes it incredibly difficult to cut down. The rise in waste generation, however, also increases environmental consciousness among organizations and consumers, with governments taking action worldwide, although public awareness is still limited in developing countries (MarketResearch.com 2023).

The upcoming trends towards more sustainable consuming are highly dependent on regulatory actions. Waste Dive (2023) highlights the controversy and debate around plastic. The organization predicts that new trends around plastic include labeling restrictions and new regulation (Waste Dive 2023). Green Match (2023) predicts that sustainability trends include enhanced recycling and increasing the use of sustainable materials, eliminating single-use plastic. The EU is planning to regulate waste and recycling by improving waste management, stimulating innovation in recycling, and limiting landfilling (European Commission 2023b). In addition, the EU is updating its Packaging and Packaging Waste Directive to reduce waste and induce sustainability. The new directive aims to “prevent the production of packaging waste, and promote the reuse, recycling and other forms of recovering of packaging waste, instead of its final disposal”. (European Commission 2023a)

A large part of generated waste consists of packaging waste. One significant way of contributing to sustainability is producing sustainable packaging. Flexible packaging is one of the fastest growing segments of the packaging industry, according to Flexible Packaging Association (2023). Flexible packaging uses the minimum amount of packaging while still maintaining required attributes, which makes it more sustainable than its alternatives. In addition, flexible packaging extends products’ shelf life, is more convenient for the consumer by being easy to open, carry, store, and re-seal, as well as consumes less water and energy in production and transport. (Flexible Packaging Association 2023) Although flexible packaging can include plastic as a material (Flexible Packaging Association 2023), it’s typically produced with the minimum amount of plastic, and emphasis on renewable materials such as wood fiber. According to European Commission (2023a), about 25 % of plastic is currently recycled in the EU, whereas the percentage for paper and cardboard is 60 %. Wood fiber also circulates about 5.5 times before losing its quality, and plastic can typically be recycled only two times. In sum of these factors, wood fiber -based flexible packaging is one answer to the increasing waste build-up and environmental crisis.

Albeit being the sustainable alternative, flexible packaging must also be desirable to the consumer to inflict a purchase decision. The packaging design must match the customer expectations and values, which also include expectations set according to the non-sustainable equivalent (Ketelsen et al. 2020). Hence, sustainable flexible packaging must meet the requirements and convenience of non-sustainable packaging alternatives while also fitting sustainability goals as well as possible. Because the consumer is the final decision maker, this thesis studies the consumer view of flexible packaging through customer experience and value.

Current research on sustainable packaging focuses on customer value and purchase intention. The material and design choices of sustainable packaging creating customer value have been widely popular topics among researchers (e.g. Nemat et al. 2019; Ketelsen et al. 2020; Otto et al. 2021). In addition, the purchase intention of sustainable packaging has been studied to match consumers' personal values to sustainable packaging (e.g. Ketelsen et al. 2020; Moorthy et al. 2021; Zhang et al. 2022; Macht et al. 2023). Consumers' personal and socio-cultural aspects, or contingencies, are also studied to affect customer experience (Becker & Jaakkola 2020). Academic studies, however, rarely focus on flexible packaging particularly, which creates a research gap in the literature field of sustainable packaging. The research on customer experience is also lacking a connection to sustainability. Although Ta et al. (2022) study the connection between customer experience and circular economy, there is few studies linking customer experience and sustainability in the consumer aspect. To fill these research gaps, the aim of this study is to connect customer experience, sustainable flexible packaging, consumer contingencies, and purchase intention.

The case packaging that fits this research is fiber-based flexible packaging. On one hand, there is a lack of research on the consumer view of fiber-based flexible packaging, and more specifically, the sustainability aspect. On the other hand, the packaging fits this research because it is a sustainable form of packaging. Thus, the relationship of customer experience, consumer contingencies, and purchase intention can be studied in the case of fiber-based flexible packaging, and these findings can be generalized to all sustainable packaging. Fiber-based packaging is also comparable to plastic, as it is considered an alternative material to plastic packaging. This ables a comparison between fiber-based and plastic packaging in the research, which further reinforces the view and validity of the study.

## 1.2 Research objective, questions, and scope

This research has academic as well as managerial objectives. The academic objectives arise directly from the research gaps in existing literature on customer experience, sustainable packaging, and sustainable purchase intention, as this thesis fits the intersection of the three. In this thesis, **customer experience** is defined by the dimensional and temporal aspects. Thus, customer experience consists of the five dimensions created by Schmitt (1999). In this thesis, the dimensions follow the forms adopted by Ta et al. (2022); sensory, affective, cognitive, social, and behavioral. These dimensions and their dynamics can be studied to better understand how consumers experience products (Ta et al. 2022). The temporal aspect includes the total timespan of the experience, starting from the first encounter with the product, and moving through purchase to after-sale phases (e.g. Verhoef et al. 2009; Becker and Jaakkola 2020). Customer experience and its multi-dimensional form lack research in the context of sustainability, as these have been studied only in the context of circular economy in the clothing industry by Ta et al. (2022).

There is no general definition to **sustainable packaging** in literature, but things like safety, health, renewability, and minimizing the amount of materials and energy used, have been suggested by multiple researchers (e.g. Zhang & Zhao 2012; Prakash & Pathak 2017; Singh & Pandey 2018; Moorthy et al. 2021). In this thesis, sustainable packaging is defined as generally promoting sustainability through its life cycle in forms of using minimum amounts of materials and energy, as well as using materials and energy that are good for the environment and healthy for consumers. Purchase intentions are consumers' motives to purchase certain products, that reflect their actual purchasing behaviors (Li et al. 2021). **Sustainable purchase intention** means the intention to purchase environmentally friendly products (Li et al. 2021; Rausch & Kopplin 2021). In this study, sustainable purchase intention is researched by establishing consumers' intention to purchase sustainable packaging.

The aim and main objective of this study is to find out, how customer experience influences consumers' purchase intention in the case of sustainable packaging. More specifically, the aim is to find out how experience influences the path from consumer contingencies to sustainable purchase intention. In addition, there are secondary objectives arising from literature. Firstly, customer experience is not connected to sustainability in current literature, which creates one objective to this research. The second objective is to connect sustainable packaging to customer experience, more specifically comparing experiences with sustainable and non-sustainable packaging alternatives. This observation also connects customer experience to sustainable purchase intention.

The managerial objectives arise from the product development of sustainable flexible packaging. These objectives include supporting research and development of the products by revealing consumer views on sustainable flexible packaging. The experience view creates a means to find out, how consumers experience sustainable packaging and what influences the purchase intention.

The research objectives can be compiled into one main research question that can be divided into two sub questions:

RQ: How does multi-dimensional customer experience influence the path from consumer contingencies to sustainable purchase intention in the case of sustainable packaging?

RQa: What do consumers experience as sustainable in packaging?

RQb: How do the distinct dimensions of customer experience influence sustainable purchase intention in the case of sustainable packaging?

RQc: How does customer experience influence the path from consumer contingencies to sustainable purchase intention?

As the research question states, the case of this study is sustainable packaging, more specifically fiber-based flexible packaging. This study also considers the consumer view, as opposed to B2B (business-to-business) view. The study is conducted by focus group interviews. The groups consist of young consumers with different nationalities; Finnish, European, and global, to ensure a global consumer perspective. The scope of sustainability is also limited to environmental sustainability.

## 1.3 Structure of the thesis

The first chapter presents the relevance, motivation and background of the study. In addition, the first chapter includes the research questions, objectives, and scope. The second chapter introduces theoretical background to the study. The chapter starts with presenting relevant literature on customer experience, followed by literature on customer value and sustainable packaging. The two latter research themes are also introduced in the context of sustainable purchase intention. The second chapter also includes a synthesis of existing literature on the fields, followed by an a priori framework.

The third chapter focuses on research methodology. Research design and data gathering, data analysis, and research quality assessment are introduced in this chapter. The research design consists of case selection and framing, preliminary interviews on the case company and industry, and focus group interviews. The preliminary interviews are conducted in order to gain familiarity with the case of flexible packaging from the perspective of the company, and these case findings are presented in chapter four. These findings include introductions of the case company, case packaging, and EU regulations.

The results of the study are presented in the fifth chapter. The results are divided into three subchapters according to the research questions. The first subchapter discusses how consumers experience sustainability in packaging through the five experience dimensions. Second, the influence of customer experience dimensions on sustainable purchase intention are presented by going through each dimension and their dynamics. Third, the paths from customer contingencies through experience to purchase intention are presented following the different contingency clusters. Chapter six concludes the research with academic and managerial implications. In addition, this chapter includes the limitations of the study and implications for future research. References and appendices can be found at the end of the thesis.

# 2. CUSTOMER EXPERIENCE CREATING VALUE IN THE CONTEXT OF SUSTAINABLE PACKAGING

This chapter introduces the theoretical bases for the study. The first part presents literature on customer experience including the dimensional definition. The second part consists of customer value literature and its relationship to customer experience as well as purchase intention. Lastly, literature on sustainable packaging is presented.

## 2.1 Customer experience

This subchapter introduces customer experience. Firstly, the development of customer experience is presented through the history of its themes. Secondly, two definitions to customer experience are offered: the comprehensive view, and the dimensional definition of the term. This chapter focuses on the B2C view of customer experience to match the research basis. In this thesis, experience is treated according to behavioral psychology, where things such as product attributes can trigger certain behaviors. The behavioral approach can be used to study how experience affects behavior, and what triggers either reinforce or hinder behaviors (Anninou & Foxall 2019). According to Tandon et al. (2020), behavioral research is a suitable approach for researching reasons for or against certain behavior. The behavioral approach can, thus, determine generalizable triggers that influence purchase intention. Phenomenology, on the other hand, highlights the individualism of customer experience (Kuuru & Närvänen 2019). According to this approach, experience is subjective and strongly individual, as every consumer has their own logic for experience (Kuuru & Närvänen 2019). Because the aim of this thesis is to find out, how experiences influence purchase intention in general, the behavioral approach fits the research better.

### 2.1.1 A brief history of customer experience concepts

Lemon and Verhoef (2016) summarize the history of customer experience from different decades up until the 2010s. According to the researchers (Lemon & Verhoef 2016), the idea of customer experience stems from the 1960s. The early stages of experiential theories show customer decision making as a process model that follows the steps from need recognition to purchase to evaluation. These theories include Howard and Sheth's (1969) theory of buyer behavior, and the attention-interest-desire-action (AIDA) model (see Lemon & Verhoef 2016). The early theories are relatively simplified and uncomplex compared to reality but lay a necessary foundation for future research.

In the 1970s, the literature shifted towards customer satisfaction and loyalty. These theories rely on comparing customers' expectations to actual experiences, which indicates the results are measured on a scale of positive to negative. This comparison has become a standard practice within marketing, showing the importance of the simplified framework. (Lemon & Verhoef 2016)

Service quality started getting more attention in the 1980s, as researchers and companies started identifying specific contexts and elements of customer experience. This also initiated the mapping of customer journey and the assessment of customer experience. (Lemon & Verhoef 2016) Although the majority of these studies focus on hard evidence, some researchers already managed to broaden the theory of customer experience to include feelings and individuality. Holbrook and Hirschman (1982) study the hedonic dimensions of customer experience; how feelings of joy and excitement affect the overall experience. In their study, Holbrook and Hirschman (1982) found that customers that experience hedonic feelings are more likely to show brand loyalty. According to Gentile et al. (2007), Holbrook and Hirschman's (1982) research started the early concept of customer experience with a new view to consumer behavior that includes the role of emotions.

In the 1990s, new theories began to broaden the scope of customer responses. The theories started to focus on trust, commitment, switching costs, and overall relationship quality, affecting especially the B2B fields. (Lemon & Verhoef 2016) Pine and Gilmore (1998) study the experience economy, theorizing that the economic value is progressing from commodities to goods to services and finally to experiences. In this theory, the economic shift is going towards differentiation and premium, with experiences at the very top of both aspects. The experiential views, that were previously associated solely with the entertainment business, are applied to every field, especially in the B2B industries. (Pine & Gilmore 1998) This theory still disregards the depth of experiences: Pine and Gilmore (1998) argue that the cues that create experiences are either positive or negative, leaving out the context and customers' individual behaviors from the theory.

In the late 1990s, the current view on customer experience also started to take form, as Schmitt (1999) bridged the gap between marketing and psychology. Building on previous studies (e.g., Holbrook & Hirschman 1982; Pine & Gilmore 1998), Schmitt (1999) theorizes, that emotions are as strong of an indicator as rational thoughts in experiences. Laying the base for current literature, Schmitt (1999) divides customer experience into five dimensions: sense, feel, think, act, and relate. The dimensions are introduced more comprehensively in section 2.2 Customer experience dimensions.

Customer relationship management (CRM) started to take form in the 2000s, as theoretic models started linking specific elements of customer experience to each other. These theories suggest that different elements of customer experience influence each other as well as business outcomes. (Lemon & Verhoef 2016) For example, Gentile et al. (2007) highlight the importance of CRM and link the idea of value co-creation to customer experience. Customers were also seen as heterogeneous groups that are attracted to and in need of different kinds of experiences. Strong and long-term connections, that had been the general aim before, were now just one of the ways to create customer relationships. (Lemon & Verhoef 2016)

During 2000s to 2010s, customer centricity bloomed even further turning the focus on individual customers. In addition to that, the focus turned to the entire company as the designer and manager of customer experience; customer centricity was observed and improved across the whole company. In the 2010s, the view shifted even further towards customer engagement, and the customer's role was recognized in the experience. (Lemon & Verhoef 2016)

### 2.1.2 Comprehensive view of customer experience today

Newer literature on customer experience has been focused on creating comprehensive frameworks to integrate different views and theories of the subject. In their literature review, Becker and Jaakkola (2020) merge theoretical premises of customer experience in marketing. The conceptual framework is demonstrated in figure 1.

The framework consists of five distinct sectors: role of the company, offering-related stimuli, customer responses to stimuli, evaluative outcomes, and key contingencies. The sectors are also divided into four premises (P1, P2, P3, and P4) that portray the bases of customer experience literature. In the framework, stimuli refer to anything that triggers response in the customer, e.g., logos, surroundings, advertising, and price. (Becker & Jaakkola 2020) The company's role (P4) includes defining the intended customer experience, as well as designing and managing the stimuli that creates said experience. In addition, the company is responsible for monitoring and responding to the stimuli that stems from outside the company's control. These kinds of stimuli can be caused by other customers, organizations, and stakeholders, as well as the contingencies that derive form individual and situational characteristics. (Becker & Jaakkola 2020)

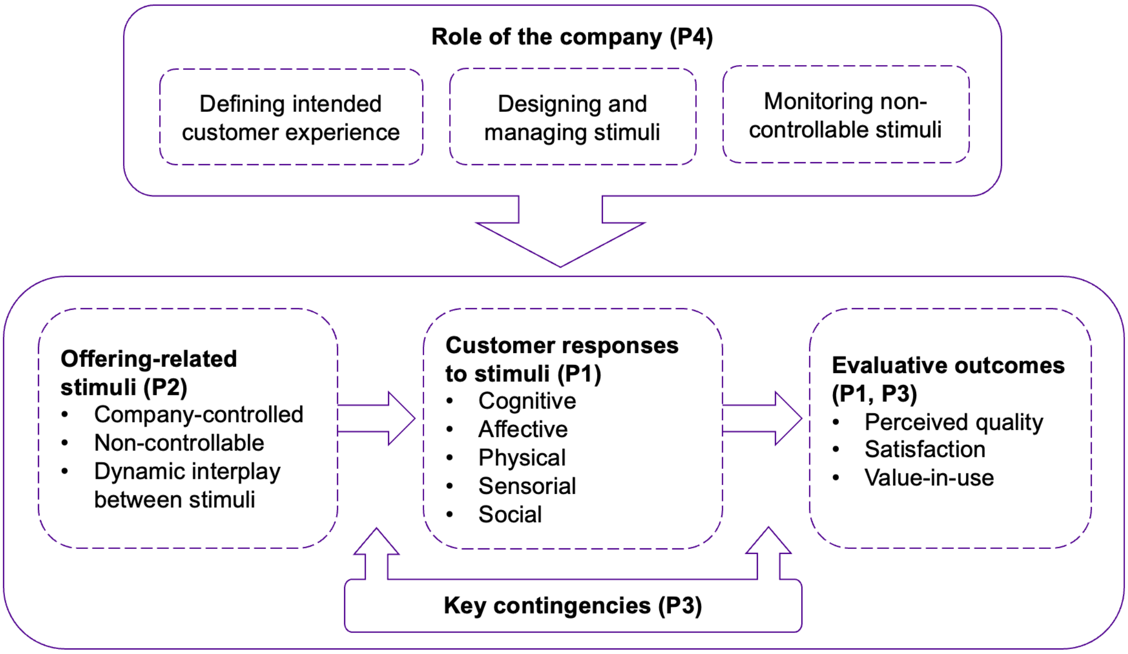


***Figure 1.*** *Conceptual framework of customer experience (adapted from Becker & Jaakkola 2020)*

The offering related stimuli (P2) includes all stimuli that affects customer experience: stimuli that is controllable and not controllable by the company (Becker & Jaakkola 2020). From the brand owner's perspective, packaging design and logo are examples of company-controllable stimuli, and retail surroundings mostly non-controllable. From the retailer's point of view, the case would be the other way around. In addition to the stimuli itself, P2 includes the interplay between different stimuli (Becker & Jaakkola 2020).

Customer responses to these stimuli (P1) include the five dimensions of customer experience: cognitive, affective, physical, sensorial, and social (see section 2.2 Customer experience dimensions). The responses can be evaluated by observing and measuring customer perceived quality, satisfaction, and value-in-use. The evaluative outcomes join premises one and three, as P1 concerns the customer responses affecting the evaluative outcomes, and P3 the influence of the key contingencies. (Becker & Jaakkola 2020)

Lastly, the key contingencies behind customer experience (P3) affect the customer journey from stimuli to experience to evaluation. The most significant contingencies can be divided into customer, situational, and socio-cultural contingencies. The customer-based ones are dependent on the individual customer characteristics, such as personality, values, knowledge, and past experiences. Situational contingencies refer to the purchase situation, such as the surroundings, and the presence of other customers and stakeholders. The socio-cultural contingencies consist of broad social systems, such as language, common practices, and societal norms. (Becker & Jaakkola 2020)

In this thesis, customer experience is viewed from consumer and packaging perspective, and thus examines premises one and three. More specifically, Becker and Jaakkola (2020) define P1 as:

“P1a: Customer experience comprises customers’ non-deliberate, spontaneous responses and reactions to offering-related stimuli along the customer journey.

P1b: Customer experience ranges from ordinary to extraordinary representing the intensity of customer responses to stimuli.” (Becker & Jaakkola 2020)

Essentially, premise one states that customer experience is an unintentional occurrence for the customer, that is triggered by a set of stimuli and can be observed through the whole customer journey.

Premise three is defined as:

“P3: Customer experience is subjective and context-specific, because responses to offering-related stimuli and their evaluative outcomes depend on customer, situational, and socio-cultural contingencies.” (Becker & Jaakkola 2020)

Premise three highlights that customer experience is highly dependent on context and situation, which has been neglected in previous research (Becker & Jaakkola 2020).

According to Becker and Jaakkola (2020), the contingencies affect how intensely a specific stimulus is recognized, and how the evaluative outcome presents, i.e., how the response can be seen. Deriving from this, the researchers state that nothing is universally good or bad, but always context specific (Becker & Jaakkola 2020). For example, the feeling of fear can be highly negative considering a doctor’s appointment, but positive in the context of extreme sports. This view contrasts previous research (e.g., Pine & Gilmore 1998; Schmitt 1999; Gentile et al. 2007; Ding & Tseng 2015; see Lemon & Verhoef 2016), that is build on the assumption that a “good experience” is universal, and scoring high on a customer experience scale is always positive regardless of customer differences. In fact, premise three suggests that evaluating customer experience by simply measuring customer satisfaction and service quality is not sufficient, and the focus should rather be on customers’ spontaneous reactions (Becker & Jaakkola 2020).

### 2.1.3 Customer experience dimensions and definition

Schmitt (1999) deepened the research on experiential marketing by arguing that people are highly emotional creatures and thus make decisions based on feelings as well as rational thoughts. Deriving from this, the researcher created five dimensions to customer experience: sense, feel, think, act, and relate. Since Schmitt’s (1999) theory, the five dimensions have been generally used and agreed upon in literature (e.g., Brakus et al. 2009; Verhoef et al. 2009; Ding & Tseng 2015; Lemon & Verhoef 2016; Becker & Jaakkola 2020; Ta 2020; Ta et al. 2022). The development of the theory has created slight differences in the naming and definitions of the dimensions. This thesis uses the framework adopted by Ta (2020), in which the dimensions are called sensory, affective, behavioral, cognitive, and social. The framework is presented in Figure 2.


***Figure 2.*** *Customer experience dimensions (adapted from Ta 2020)*

The sensory dimension includes all five senses: sight, sound, touch, smell, and taste (Schmitt 1999). These stimuli do not only concern the product itself, but also the brand, retail environment, and packaging, for example (Ta 2020). The sensory dimension also includes actual as well as imaginary sensory responses (Krishna et al. 2017). For example, a food product ad typically uses visual and auditory stimuli to trigger responses in smell and taste.

The affective dimension is comprised of the customer's feelings and emotions (Schmitt 1999). This dimension involves the work of Holbrook and Hirschman (1982), who highlighted the hedonic values of experience in consumption. According to Ta (2020), the affective dimension is considered a response to the sensory dimension; senses triggering emotions. The affective dimension is also very individual and linked to the customer's attitudes and personality. The feelings in the affective dimension can be further categorized by the hierarchy of consumer emotions, presented by Laros & Steenkamp (2005).

The cognitive dimension consists of active thinking, such as memories and problem solving. It also includes cognitive abilities, such as creativity. (Schmitt 1999) According to Ta (2020), the cognitive process was considered the primary predictor of purchase before experience economy was theorized. The brain interacting with the stimuli and comparing it to previous information and memories is part of the cognitive dimension (Ta 2020).

The behavioral dimension includes physical actions and represents alternative ways of doing. (Schmitt 1999) According to Ta (2020), brands that encourage physical actions or behaviors, or result in bodily experiences, are targeting the behavioral dimension. The behavioral side can also stem from interacting with the customer's lifestyle (Ta 2020). Sports brands are typical examples of companies that target the behavioral experience, as they encourage athletic and healthy actions and lifestyles.

Lastly, the social dimension contains aspects of all of the previous dimensions, creating identity and community among customers (Schmitt 1999). Relating to a reference group or culture triggers the social dimension. More broadly, all feelings stemming from or involving others also add to the social experience. (Ta 2020) Thus, the social experience can also be initiated by the affective dimension.

In reality, the dimensions are not as distinct as theorized, but overlapping and interacting. One aspect of a product can trigger multiple experiential dimensions and the dimensions can also trigger each other. (Schmitt 1999) Schmitt (1999) theorizes, that marketing should target one or a few of the dimensions, according to what fits the brand. Including all five dimensions would be the ideal situation, but hard to accomplish in reality (Schmitt 1999). This theory ignores the fundamental differences in individual customers and context dependence of customer experience, that Becker and Jaakkola (2020) highlight. Because all of the dimensions are interrelated, targeting all of them is practically inevitable.

Although the dimensional model is generally accepted, there are some variations to it in literature. Gentile et al. (2007) develop a slight variation to the dimensions by merging parts of the social and behavioral dimensions into a new dimension called lifestyle. Trudeau and Shobeiri (2016), in turn, reduce the number of dimensions to four by separating the social dimension from the rest. In their theory, Trudeau and Shobeiri (2016) suggest that the social aspect affects all of the dimensions and should thus be separated from the framework. Because all of the dimensions are already theorized to interact with one another, this thesis uses the generally accepted five dimensions. The five dimensions are also highly recommended in literature: In their work, Becker and Jaakkola (2020) recommend using the five dimensions when researching customer experience. Brakus et al. (2009), in turn, prove the accuracy of the dimensions by studying customer experience influencing brand loyalty.

The definition of customer experience includes the dimensional and temporal aspects. According to Verhoef et al. (2009), customer experience is defined by the five dimensions, and the total time span of the experience, also called the customer journey by Becker and Jaakkola (2020). The time span starts with searching for the product or service, and proceeds to purchase, consumption, and after-sale phases (Verhoef et al.

2009). In addition to this definition, customer experience follows Becker and Jaakkola's (2020) framework that integrates the different premises of customer experience. Together, these theories form a coherent and comprehensive definition to customer experience.

## 2.2 Customer experience creating customer value

This chapter presents sustainable customer value and its connection to customer experience by first briefly introducing the existing literature on customer value. Secondly, the relationship of customer value and customer experience is presented. Lastly, the relationship of customer value and sustainable purchase intention is demonstrated through literature. To match the empirical research, this chapter focuses on the B2C view of customer value.

### 2.2.1 Concepts of customer value

The earliest concept of customer value consists of a transactional view in the form of value trade-offs (Zeithaml 1988). Woodruff (1997) considers value to be made of components that derive, for example, from product attributes. Khalifa (2004) composes a literature review to bring together different research premises on customer value, namely value exchange (trade-offs), value build-up (transactions), and value dynamics (components). Closely connecting to the models, Mencarelli and Riviere (2015) compare B2B and B2C views of customer value to integrate theories as well as widen research areas on both views. To further categorize customer value, Rintamäki et al. (2007) create a framework based on a literature review. Four dimensions of customer value are detected: economic, functional, emotional, and symbolic value. The economic value is self-explanatory, as it consists of the monetary worth of the offering. The functional value represents the usage and quality of the product. The emotional value includes the feelings caused by the product, and is closely connected to customer experience in the study. Lastly, the symbolic value includes self-expression and social values. (Rintamäki et al. 2007)

Customer value has also been studied in the context of sustainability: Aarikka-Stenroos et al. (2021) adopt the customer value dimensions to study B2B and B2C customer values in circular economy. According to the study (Aarikka-Stenroos et al. 2021), consumers appreciate low prices (economic), excitement and variety (emotional), filling their exact needs (functional), and feelings of pride and community (social). Sairanen et al. (2024) study B2B customer value in circular economy, and create a modified dimensional categorization. The authors create three new dimensions to customer value specifically in circular economy, namely ethical, strategic adaptation, and systemic value (Sairanen et al. 2024). Sener et al. (2022) create another modification of the dimensions with B2C view. The dimensions are called emotional, social, epistemic, and conditional (Sener et al. 2022). Compared to the previous frameworks, the conditional dimension is especially differentiating, as the other dimension models lack the situational aspect that changes with time.

### 2.2.2 Customer experience creating customer value

According to many scholars (e.g., Rintamäki et al. 2004; Nasution & Mavondo 2008; Chen & Lin 2015; Chen 2015; Vakulenko et al. 2018; Becker & Jaakkola 2020; Urdea & Constantin 2021; Samsa & Yuce 2022), customer experience is seen as a creator of customer value. This view is not, however, clearly stated in the definition of customer experience, which creates differences in the idea of the relationship. According to Becker and Jaakkola (2020), customer experience can be evaluated by the customer's value-in-use. This is not a sufficient view on the relationship of experience and value, as customer value is only presented as value-in-use and showcased as a form of evaluation. The relationship also lacks research, as very few scholars have studied the effects of customer experience and customer value on each other.

Nasution and Mavondo (2008) and Samsa and Yuce (2022) use the terms as an integrated concept. Nasution and Mavondo (2008) study managers' perceived customer value and customers' experienced value in the hotel industry. In the study, experienced value depicts the actual value perceived by the customer, which is typically underestimated by the customers (Nasution & Mavondo 2008). Actual customer value and experience are, thus, used as synonyms in the study. Samsa and Yuce (2022) study customer value in hospitals. In the study (Samsa & Yuce 2022), the terms are integrated to form the concept of customer experience value, which represents the value derived from the experience.

Chen and Lin (2015) and Chen (2015) create frameworks that include both customer experience and customer value. Both of the frameworks present customer experience affecting customer value, and both studies result in a significant positive influence between the terms. Vakulenko et al. (2018) pose a different type of framework with the same underlying idea. According to the framework (Vakulenko et al. 2018), customer value is created through the stages of experience, which are called pre-experience, interaction, and post-experience.

The general consensus can, thus, be summarized to customer experience creating customer value, but the relationship is still lacking detail and certainty in literature. In this thesis, customer experience is seen as a creator of customer value, and customer value can be seen through the lens of customer experience. Customer value is also closely linked to consumers' personal values, but the terms are separated to create a clear distinction between experience and contingencies, as seen in Becker and Jaakkola's (2020) framework. Thus, customer value is created by customer experience and stems from the product, and consumers' own values are part of contingencies that stem from the consumer.

### 2.2.3 Customer value influencing sustainable purchase intention

In literature, sustainable purchase intention refers to the purchase intention of sustainable products (e.g. Jaiswal & Kant 2018; Ahmed et al. 2022). Many scholars study purchase intention with the theory of planned behavior. In short, the theory of planned behavior suggests that certain beliefs lead to certain behavior (Ahmed et al. 2022). In the context of customer value, studies generally show a significant positive influence between value and sustainable purchase intention (e.g., Hsu et al. 2017; Confente et al. 2020; Zhuang et al. 2021; Ahmed et al. 2022). The most significant influences on sustainable purchase intention according to literature are presented in table 1. In the table, consumer attitude refers to the attitude towards sustainable products.

According to Ahmed et al. (2022), green attitude, customer value, and marketing mix all have a significant positive impact on green purchase intention. Confente et al. (2020) argue, that green self-identity affects perceived value, which in turn affects purchase intention. Hsu et al. (2017) conclude that perceived value and corporate social responsibility are important factors affecting sustainable consumer attitudes and purchase intention. Interestingly, environmental concern shows no significant effect on sustainable consumer attitudes of purchase intention in the study (Hsu et al. 2017). In their study, Zhuang et al. (2021) also come to the conclusion that green value, trust, and attitude significantly influence purchase intention, with the green perceived risk affecting it negatively. Green risk can be defined as the expectation of negative effects on the environment caused by purchase behavior (Zhuang et al. 2021).

***Table 1.*** *Customer value influences on sustainable purchase intention*

| **Reference** | **Research subject** | **Positive influences on sustainable purchase intention** |
|---|---|---|
| Ahmed et al. (2022) | Green purchase intention, US consumers | Green attitude, customer value, and marketing mix |
| Choi & Johnson (2019) | Environmental and hedonic motivations, and green products | Consumer attitude, subjective norm, and environmental knowledge |

| | | |
|---|---|---|
| Confente et al. (2020) | Bio-plastic products, | (Green self-identity), and perceived value, moderated by self-congruity |
| Gong et al. (2022) | Green attributes in utilitarian and hedonic product categories | Peripheral green attributes for utilitarian products, core green attributes for hedonic products |
| Hsu et al. (2017) | Organic food, Taiwanese consumers | Perceived value, corporate social responsibility, consumer attitudes. Environmental concern not. |
| Jaiswal & Kant (2018) | Green products, Indian consumers | Consumer attitudes, environmental concern, and perceived consumer effectiveness. |
| Li et al. (2021) | Green products, Chinese consumers | Altruistic and biospheric values, partly mediated by environmental concern, which moderated by green trust. Egoistic values influence negatively |
| Liu et al. (2020) | Green products, Chinese consumers | Consumer attitudes, subjective norms mediated by moral norms. |
| Nguyen et al. (2017) | Environmentally friendly products, Vietnamese consumers | Consumer attitudes, subjective norms, gender, tolerance of inconvenience in product purchase, collectivism, long-term orientation. |
| Panda et al. (2020) | Green purchase intention, graduate level consumers who regularly buy green products | Social and environmental sustainability awareness mediated by altruism. |
| Paul et al. (2016) | Green product purchase intention, Indian consumers | Environmental concern mediated by consumer attitudes and perceived behavioral control. |
| Pham et al. (2019) | Organic food purchase behavior, young Vietnamese consumers | Consumer attitudes. Perceived barriers affect attitudes and purchase intention negatively. |
| Rausch & Kopplin (2021) | Sustainable clothing | Environmental knowledge and concern mediated by consumer attitudes. Greenwashing concerns affect negatively. |
| Sener et al. (2022) | Recycled content clothing, Turkish female consumers | Emotional, epistemic, and conditional customer value, environmental concern. |
| Sreen et al. (2018) | Green products, Indian consumers | Collectivism and man-nature orientation mediated by green attitude, subjective norm and perceived behavioral control. |
| Suphasomboon & Vassanadumrongdee (2022) | Green cosmetics, Thai consumers | Perceived functional and emotional value mediated by ethical concern. |
| Zhuang et al. (2021) | Meta-analysis of empirical green purchase intention papers | Green perceived value, attitude, green trust, perceived behavior control, perceived consumer effectiveness, and subjective norm, collectivism. Green perceived risk affects negatively. |

Suphasomboon and Vassanadumrongdee (2022) divide customer value into three dimensions: functional, emotional, and social, and study their effect on ethical concern, attitudes, and purchase intention. In the study, functional value adds to consumers' ethical concern and purchase intention by affecting attitudes. Emotional value has a positive effect on ethical concern, but doesn't directly affect purchase intention. Ethical concern, in turn, is the dominant driver of purchase intention, which makes it a mediator between emotional value and purchase intention. Social value influences none of the subjects. (Suphasomboon & Vassanadumrongdee 2022) Sener et al. (2022) study emotional, social, epistemic, and conditional values on consumer attitudes and purchase intention on recycled clothing. In the study, conditional value is the only one related to attitude. Emotional, epistemic, and conditional value also positively influence purchase intention. In addition, environmental concern is not related to attitude, but positively and directly affects purchase intention. (Sener et al. 2022)

In addition to customer value, the effect of individual characteristics, such as attitude, environmental concern and awareness, and collectivism, are studied in the context of purchase intention. According to multiple studies (e.g., Paul et al. 2016; Jaiswal & Kant 2018; Choi & Johnson 2019; Liu et al. 2020; Rausch & Kopplin 2021), sustainable attitude is the best predictor of sustainable purchase intention. According to Jaiswal and Kant (2018), sustainable attitudes are driven by environmental concern and perceived consumer effectiveness. Choi and Johnson (2019) argue that environmental concern is linked to perceived environmental effectiveness, which, in turn, is connected to sustainable attitude. Environmental knowledge is studied to affect purchase intention directly. In addition, hedonic motivations can influence both attitude and purchase intention. (Choi & Johnson 2019) Liu et al. (2020) suggest that moral norms affect attitudes and purchase intention, while subjective norms show a weaker effect. According to Rausch and Kopplin (2021), environmental concern and knowledge affect both attitudes and purchase intention, while greenwashing moderates the effects. Li et al. (2021) also consider greenwashing as a subject that decreases green trust, which affects purchase intention. Specifically, green trust is studied to moderate environmental concern and purchase intention (Li et al. 2021).

Considering cultural values, Nguyen et al. (2017) and Sreen et al. (2018) study collectivism and long-term orientation on sustainable purchase intention. According to Sreen et al. (2018), collectivism and long-term orientation both affect sustainable attitude, and gender has no significant effect in the study. Nguyen et al. (2017) come to a similar conclusion, with attitude and subjective norms significantly influencing purchase intention. In their study, Nguyen et al. (2017) also find differences depending on gender: females rely more on perceived environmental effect, as males are more likely to draw attention to barriers, such as high price, time, or effort. Demographic variables, such as age, income, and profession also have mixed findings in literature (Suphasomboon & Vassanadumrongdee 2022). Pham et al. (2019) also study the barriers of sustainable purchase intention. In the study, environmental concern shows no significant effect on attitude, which might be explained by the general lack of environmental knowledge. Barriers, such as price, non-availability, poor labeling, and time, significantly decrease environmental attitude and purchase intention. (Pham et al. 2019)

Panda et al. (2020) study the effect of social and environmental awareness on altruism, which in turn affects purchase intention. Gong et al. (2022) divide products into utilitarian and hedonic categories. According to the study, peripheral green attributes increase the purchase intention of utilitarian products the most, and for hedonic products, green core attributes raise purchase intention. Mancuso et al. (2021) study the effect of marketing on purchase intention. In the study, marketing and consumers' interest towards sustainable products separately affect brand loyalty negatively. When the two are simultaneous, however, brand loyalty is affected positively. According to these findings, sustainability-oriented consumers focus on the sustainable aspects of marketing, and thus avoid the overload of information and confusion that other consumers experience. (Mancuso et al. 2021)

## 2.3 Sustainable packaging

This chapter introduces sustainable packaging through its definition. Secondly, the relationship between sustainable packaging and customer value is presented. Lastly, the relationship between sustainable packaging and purchase intention is introduced. Because sustainable packaging is not linked to customer experience sufficiently in literature, this relationship is explored in chapter 2.4.2 A priori framework.

### 2.3.1 Definition of sustainable packaging

According to interviews in the case company, the primary functions of packaging are to (1) protect what it sells and (2) sell what it protects. In other words, packaging is supposed to protect its contents through transportation and storage (Rundh 2016; Otto et al. 2021; Alvarez-Gonzalez et al. 2023), as well as be appealing to the customer. In addition to these functions, packaging has multiple different aspects and attributes that create value, and many of them are related to sustainability.

Although sustainable packaging is a widely researched field, not many scholars provide a definition for the term. According to Ketelsen et al. (2020), there is no general definition for sustainable packaging. In packaging literature (Prakash & Pathak 2017; Singh & Pandey 2018; Ketelsen et al. 2020; D'Astous & Labrecque 2021), terms such as sustainable, responsible, environmentally friendly, green, eco-friendly, and ecological are used as synonyms, which further complicates the recognition of a single cohesive definition.

Prakash and Pathak (2017) claim, that the packaging industry has generally accepted the definition of the Sustainable Packaging Coalition (2011). According to the definition (see Prakash and Pathak 2017), sustainable packaging:

- “is beneficial, safe and healthy for individuals and communities throughout its life cycle
- meets market criteria for performance and costs
- is sourced, manufactured, transported, and recycled using renewable energy
- optimizes the use of recycled source material
- is manufactured using clean production technologies and best practices
- is made from materials healthy throughout the life cycle
- is physically designed to optimize materials and energy; and
- is effectively recovered and utilized in biological and/or industrial closed loop cycles”

Singh and Pandey (2018) and Moorthy et al. (2021) adopt the definition of Zhang and Zhao (2012), which states that a sustainable package is made of natural ingredients, reusable, decomposable, safe for humans, livestock, and the environment, and promotes sustainable development through its life cycle. In this thesis, sustainable packaging is defined as packaging that generally promotes sustainability through its life cycle in forms of using minimal amounts of materials and energy, as well as using types of material and energy that are good for the environment and healthy to consumers. The literature on sustainable packaging can be roughly categorized into two separate premises: sustainable packaging attributes, and consumer variables. The first is focused around attributes, that promote the sustainability of the packaging (e.g. Ketelsen et al. 2020; Otto et al. 2021). This premise is introduced in chapter 2.3.2 Sustainable packaging creating customer value. The second premise considers the consumer in the process of purchasing packaging (e.g. Prakash & Pathak 2017; Moorthy et al. 2021). This premise is introduced in chapter 2.3.3 Sustainable packaging influencing purchase intention.

According to interviews in the case company, sustainable packaging lacks coherent definition, because the relevant aspects of sustainability differ greatly depending on the type of packaging. Examples of sustainable attributes in the case of flexible packaging can be summarized in material, design, production, and infrastructure attributes. Material attributes include recyclability, compostability, renewability, and food and product safety. Design attributes consist of product preservability and ability to empty the packaging completely, which both minimize product waste caused by the packaging. Production attributes consider the environmental impact of the whole supply chain. In this case, the supply chain starts with forests, that must be managed responsibly to maintain growth and diversity in plant and animal species. Typically, the main focus on supply chain sustainability is reducing carbon and water footprints. Finally, the infrastructure attributes include the larger enabling structures, such as recycling technologies and facilities, as well as the market for recycled materials and products.

Flexible packaging is considered a more sustainable alternative to plastic packaging. Bening et al. (2021) use the definition provided by Glenroy (2019), which states that flexible packaging is “a package or container made of flexible or easily yielding materials that, when filled and closed, can be readily changed in shape”. The term is typically used with packaging made of paper, plastic film, or foil, or combinations of these materials (Glenroy 2019). Thus, the term flexible packaging also includes plastic packaging, but more sustainable alternatives are continuously being developed. This thesis focuses on paper-based alternatives in contrast to plastic packaging. According to Bening et al. (2021), flexible consumer packaging is typically used in food products, but can also be found in, for example, hygiene applications. The value chain includes actors from raw material suppliers to brand owners to retailers and recyclers (Bening et al. 2021).

### 2.3.2 Sustainable packaging creating customer value

Environmental attributes of packaging are increasingly important to consumers (Rokka & Uusitalo 2008). In their literature review, Ketelsen et al. (2020) summarize, that consumers are generally aware of the environmental impact of packaging. The attitude towards sustainable packaging is also overall positive (Ketelsen et al. 2020). According to Nemat et al. (2019), there is not enough knowledge about sustainable packaging among consumers, which creates a gap between perceived and actual sustainability. Consumers can, however, be influenced and educated with packaging (Nemat et al. 2019; D’Astous & Labrecque 2021).

Material is one of the primary attributes consumers recognize in sustainable packaging (Korhonen 2012; Nemat et al. 2019; Ketelsen et al. 2020; Otto et al. 2021). Glass and cardboard are perceived as the most sustainable materials, although material life cycle analyses show otherwise (Nemat et al. 2019; Ketelsen et al. 2020; Otto et al. 2021). According to Nemat et al. (2021), these materials are also more likely to be sorted by consumers. Otto et al. (2021) study the perceived and actual sustainability of different packaging materials. In the study, consumers rate glass as the most sustainable material, followed by cardboard and biodegradable plastic, metal, and finally plastic. In reality, cardboard is the most sustainable material, followed by plastic, metal, biodegradable plastic, and lastly glass. The study concludes that consumers severely overestimate the the environmental impact of plastic and underestimate the negative impact of glass and biodegradable plastic. Food products that are sold without any packaging are also considered more sustainable than they actually are, because although saving material, the lack of packaging causes food waste. (Otto et al. 2021)

Other significant attributes of sustainable packaging are logos and labels (Nemat et al. 2019; Ketelsen et al. 2020). According to Nemat et al. (2019), visual attributes are more important than textual information, and consumers generally rely on "environmentally friendly" -labels on packaging. The current labeling system is, however, insufficient: labels depicting sustainability or recyclability are not intuitive nor universal. This confuses consumers and leads to the purchase of products based on a feeling rather than actual information. (Nemat et al. 2019) The EU has identified this problem, and aims to eliminate it with the new Packaging and Packaging Waste Directive (see chapter 4.3 EU regulation shaping sustainable packaging). The directive includes harmonized labeling of sorting instructions and reusability across all packaging in the EU market.

Ketelsen et al. (2020) conclude that consumers value packaging that is safe for humans and nature, recyclable, and biodegradable. Otto et al. (2021) state that perceived recyclability, as well as natural looking material and design are the attributes consumers rate packaging sustainability by. Korhonen (2012) compiles a list of attributes, that consumers value in sustainable packaging. Considering material choices, recyclability is considered the most important attribute. Biodegradability, and the possibility to recover the material as energy are also placed high on the list. When it comes to packaging design, the most valued attributes are that the package empties easily preventing product waste, and that the packaging takes up as little material as possible. (Korhonen 2012) In addition to sustainable values, the packaging must also have an attractive design (Korhonen 2012; D'Astous & Labrecque 2021). The valued qualities of the non-sustainable equivalent must be present in the sustainable packaging (Ketelsen et al. 2020). In their study on organic food packaging, Liang et al. (2022) come to the conclusion that small packages are perceived as more sustainable than large ones. Macht et al. (2023) conclude that perceived eco-friendliness is crucial for sustainable packaging, and perceived convenience also increases sustainable value.

Sustainable packaging attributes that create customer value can be categorized in two groups: material and design. Material attributes include the attributes that are dependent on material choices, such as recyclability, biodegradability, food safety, and renewability. Design attributes include design dependent attributes, such as logos and labels, attractive and natural design, convenience and functionality, and the prevention of waste by emptying easily and taking up the minimum amount of material. These attributes are increasingly inconsistent and confusing to consumers because of ambiguous packaging. On one hand, plastic is seen as bad and non-sustainable (Otto et al. 2021), and on the other hand it can be recycled and made biodegradable. The ambiguity of the material is also confusing to the consumer, as plastic packaging can be designed to seem sustainable with matte surface, natural colors, and eco-labels.

Consumers that are environmentally conscious value sustainability in products. According to Prakash and Pathak (2017), environmentally aware people value sustainable packaging. Korhonen (2012) comes to the same conclusion when studying LOHAS (lifestyle of health and sustainability) consumers. Packaging can also influence consumer behavior. Nemat et al. (2019) and Martinho et al. (2015) highlight, that because packaging is an essential means of consumer communication, consumer attitudes can be changed with it. Increasing environmental knowledge is possible via packaging (Martinho et al. 2015; Nemat et al. 2019; Macht et al. 2023), which means consumers can be shifted from environmentally unaware to LOHAS and environmentally conscious groups.

### 2.3.3 Sustainable packaging influencing purchase intention

According to Ketelsen et al. (2020), there is an extensive range of literature on sustainable packaging and purchase intention. In D’Astous and Labrecque’s (2021) framework, responsible packaging influences perceived naturalness and healthiness, which influences purchase intention. Alvarez-Gonzalez et al. (2023) argue that sustainability is negatively related to the purchase intention of experiential packaging. The researchers continue to speculate, that experiential packaging may not have an inherently sustainable image, as it typically contains excess material and information (Alvarez-Gonzalez et al. 2023). Thus, experiential packaging may not be seen as generally sustainable by consumers. The influences on the purchase intention of sustainable packaging are presented in table 2.

***Table 2.*** *Influences on purchase intention of sustainable packaging*

| Reference | Research subject | Positive influences on sustainable purchase intention |
|---|---|---|
| Alvarez-Gonzalez et al. (2023) | Experiential packaging in the food industry | Engagement attributes, branding, and economy. Sustainability affects negatively |
| D'Astous & Labrecque (2021) | Responsible food packaging | Perceived responsibility, mediated by perceived naturalness and healthiness |
| Ketelsen et al. (2020) | Environmentally friendly food packaging, literature review | Environmental concern. Age, gender, and preference have mixed findings |
| Macht et al. (2023) | Bio-based food packaging strategies, German consumers | Perceived eco-friendliness, convenience, and green values |
| Martinho et al. (2015) | Sustainable packaging, Portuguese consumers | Environmental awareness, social concern, green attitude, perceived control of actions, age, and gender |
| Moorthy et al. (2021) | Green packaging, Malaysian consumers | Attitude, perceived behavioral control, environmental concern and knowledge. Concern the most dominant |
| Prakash & Pathak (2017) | Eco-friendly packaging, Indian consumers | Personal norms, attitude, environmental concern, and willingness to pay |
| Prakash et al. (2019) | Altruistic and egoistic values on eco-friendly packaging, Indian consumers | Egoistic (health concern) and altruistic (environmental concern) values. Altruistic more dominant |
| Rokka & Uusitalo (2008) | Consumer choices in functional drink products, Finnish consumers | Environmental packaging, price, convenience, and brand |
| Singh & Pandey (2018) | Willingness to pay price premium for green packaging | Customer value dimensions: epistemic, functional, economic, symbolic, altruistic, and biospheric |
| Zhang et al. (2022) | Recycled packaging, Islamic consumers | Environmental attitude and subjective norm, moderated by religiosity |

Many scholars have come to the conclusion, that a consumer's environmental awareness increases their purchase intention of sustainable packages (e.g., Rokka & Uusitalo 2008; Martinho et al. 2015; Prakash & Pathak 2017; Ketelsen et al. 2020; Moorthy et al. 2021; Zhang et al. 2022; Macht et al. 2023). According to Ketelsen et al. (2020), environmental concern is significantly and positively related to the purchase intention of environmentally friendly food packaging. In Moorthy's et al. (2021) study, environmental concern, and knowledge, as well as attitude affect sustainable purchase intention, with environmental concern being the most dominant indicator. Martinho et al. (2015) state, that attitudes influence the purchase intention of sustainable packaging with environmentally concerned people. Prakash and Pathak (2017) argue that environmental attitude and concern, as well as personal norms are significant indicators of purchasing sustainable packaging. According to Zhang et al. (2022), environmental concern, knowledge, and value affect environmental attitude, which affects the intention to buy products in recycled packages.

Rokka and Uusitalo (2008) and Macht et al. (2023) highlight the importance of environmental values and consumers' personal preferences. Another study on consumers' sustainable values affecting the purchase intention of sustainable packaging is performed by Prakash et al. (2019). In the study, values are divided into egoistic and altruistic values, which in short translate to selfish and selfless values. Egoistic sustainable values are comprised of individuals' health concerns, while altruistic values include environmental concerns. The study concludes that both values significantly influence sustainable attitude and purchase intention, altruistic values being the more dominating of the two. (Prakash et al. 2019)

The influence of the consumer's background, however, has not been agreed on in literature. According to Ketelsen et al. (2020), there are multiple studies on the age, gender, and preferences of the consumers influencing the intention to purchase sustainable packaging, with very mixed results. In Ketelsen's et al. (2020) study, women are more likely to purchase environmentally friendly packaging than men. Older people are also more prone to make sustainable choices in packaging than young people (Ketelsen et al. 2020). Rokka and Uusitalo (2008) argue, that the background of the consumer is insignificant in the context of purchasing a packaging. Consumers are also willing to pay a price premium for sustainable packaging (Prakash & Pathak 2017; Singh & Pandey 2018; Ketelsen et al. 2020).

## 2.4 Summarizing literature and forming a priori framework

This chapter introduces a summary and synthesis of existing literature. In addition, this chapter presents the a priori framework based on existing literature and research gaps found in the literature.

### 2.4.1 Existing research synthesis

Existing research on customer experience, customer value, purchase intention, and sustainable packaging are presented in chapters 2.1 to 2.3. The synthesis on existing literature is presented in figure 3. Literature on customer experience that is relevant to this study can be categorized into four themes: fundamentals of customer experience, customer experience and sustainability, consumer view, and managerial view on customer experience. The fundamentals of customer experience discuss the definition of the term.

Schmitt (1999) created the widely adopted dimensional view on customer experience. Lemon and Verhoef (2016) research the customer journey by adding the temporal aspect to customer experience. Finally, Becker and Jaakkola (2020) merge theoretical premises on customer experience and form a cohesive picture of these.

**Customer experience**

**Fundamentals of customer experience (2.1.2, 2.1.3)**
- Becker & Jaakkola (2020)
- Lemon & Verhoef (2016)
- Schmitt (1999)

**Customer experience and sustainability, consumer view on customer experience (2.1.3)**
- Ta et al. (2022)

**Managerial view on customer experience (2.1.3)**
- Verhoef et al. (2009)

Brand experience
- Brakus et al. (2009)
- Ding & Tseng (2015)
- Trudeau & Shobeiri (2016)

**Customer value in customer experience**

**Customer experience creating customer value (2.2.2)**
- Chen (2015)
- Chen & Lin (2015)
- Gentile et al. (2007)
- Maklan & Klaus (2011)
- Urdea & Constantin (2021)
- Vakulenko et al. (2018)

**Customer experience and value used as synonyms (2.2.2)**
- Nasution & Mavondo (2008)
- Samsa & Yuce (2022)

**Customer value affecting sustainable purchase intention (2.2.3)**
- Ahmed et al. (2022)
- Choi & Johnson (2019)
- Confente et al. (2020)
- Gong et al. (2022)
- Hsu et al. (2017)
- Jaiswal & Kant (2018)
- Li et al. (2021)
- Liu et al. (2020)
- Nguyen et al. (2017)
- Panda et al. (2020)
- Paul et al. (2016)
- Pham et al. (2019)
- Rausch & Kopplin (2021)
- Sener et al. (2022)
- Sreen et al. (2018)
- Suphasomboon & Vassanadumrongdee (2022)
- Zhuang et al. (2021)

**Sustainable packaging**

**Managerial view on sustainable packaging (2.3.1)**
- Bening et al. (2021)
- Zhang & Zhao (2012)

**Consumer view on sustainable packaging (2.3.2)**
- Nemat et al. (2019)
- Otto et al. (2021)

**Packaging affecting sustainable purchase intention (2.3.3)**
- Alvarez-Gonzalez et al. (2023)
- D'Astous & Labrecque (2021)
- Ketelsen et al. (2020)
- Macht et al. (2023)
- Martinho et al. (2015)
- Moorthy et al. (2021)
- Prakash & Pathak (2017)
- Prakash et al. (2019)
- Rokka & Uusitalo (2008)
- Singh & Pandey (2018)
- Zhang et al. (2022)

***Figure 3.*** *Synthesis on existing literature*

Customer experience lacks research in the field of sustainability, as only Ta et al. (2022) have conducted research connecting the two. In the study, Ta et al. (2022) research the dimensional form of customer experience from the viewpoint of circular economy. This study is also the only relevant one to research consumer view on customer experience. The managerial view on customer experience has been studied more, as Verhoef et al. (2009), Brakus et al. (2009), Ding and Tseng (2015), and Trudeau and Shobeiri (2016) have studied the managerial view. Out of these studies, the three latter ones study brand experience.

The relationship of customer value and customer experience has not been researched, but experience is typically seen as a creator of customer value (Gentile et al. 2007; Maklan & Klaus 2011; Chen 2015; Chen & Lin 2015; Vakulenko et al. 2018; Urdea & Constantin 2021). Some researchers also use the terms as synonyms (Nasution & Mavondo 2008; Samsa & Yuce 2022), which further complicates the relationship of the two. Customer value and experience have also not been researched together in the context of sustainability. Customer value, however, has been connected to sustainable purchase intention in many instances (e.g. Choi & Johnson 2019; Ahmed et al. 2022). Customer value (e.g. Hsu et al. 2017; Ahmed et al. 2022), and sustainable attitude (e.g. Jaiswal & Kant 2018; Choi & Johnson 2019) have been researched to significantly influence sustainable purchase intention. In addition to these, other purchase intention influencing factors include sustainable trust (e.g. Li et al. 2021), environmental concern (e.g. Paul et al. 2016), and ethical concern (Suphasomboon & Vassanadumrongdee 2022).

The relevant literature on sustainable packaging includes the managerial and consumer views, as well as packaging affecting sustainable purchase intention. Bening et al. (2021), and Zhang and Zhao (2012) study the managerial side of sustainable packaging by viewing packaging from the viewpoint of product development and management. Nemat et al. (2019) study consumer recycling and food packaging. Otto et al. (2021) highlight consumer perceptions as opposed to scientific facts on packaging and its sustainability. Packaging is also widely studied in the context of sustainable purchase intention (e.g. D'Astous & Labrecque 2021; Alvarez-Gonzalez et al. 2023). In this context, the most significant influencers are environmental awareness (e.g. Martinho et al. 2015), concern (e.g. Ketelsen et al. 2020), and knowledge (e.g. Moorthy et al. 2021). Demographic variables, such as age, gender, profession, and income have mixed findings on sustainable purchase intention (Martinho et al. 2015; Ketelsen et al. 2020).

In light of existing research, the relationship between customer experience and customer value is not completely coherent. The main view on the relationship is that customer experience creates value (e.g. Chen & Lin 2015; Vakulenko et al. 2018), which matches the definitions of both terms. However, this view is not clearly stated in literature, but implied or presumed. This leads to the misunderstanding of the terms, and explains why some researchers (Nasution & Mavondo 2008; Samsa & Yuce 2022) use customer experience and customer value as synonyms. The frameworks that include both customer value and experience (e.g. Chen & Lin 2015; Vakulenko et al. 2018) also completely lack a sustainable view.

Customer value is also linked to sustainable packaging in literature (e.g. Rokka & Uusitalo 2008; Ketelsen et al. 2020). Material is studied to be one of the most important attributes that customers notice in packaging, although customer perceptions can differ from true environmental impacts (Nemat et al. 2019; Ketelsen et al. 2020; Otto et al. 2021). Packaging design is also a significant indicator of sustainability to consumers, as they often trust logos and labels (Nemat et al. 2019; Ketelsen et al. 2020), as well as how easy the packaging is to empty and how much material it uses (Korhonen 2012). In addition to the sustainable values, the packaging must also match the intuitive values of product protection, attractiveness, and convenience (e.g. Korhonen 2012; D'Astous & Labrecque 2021; Macht et al. 2023). Sustainable packaging is, thus, researched in the contexts of customer value and purchase intention, but lacks research in the context of customer experience.

### 2.4.2 A priori framework

Building on existing literature, an a priori framework is formed to showcase a new structure on the subjects, as well as research gaps. The a priori framework is presented in figure 4.

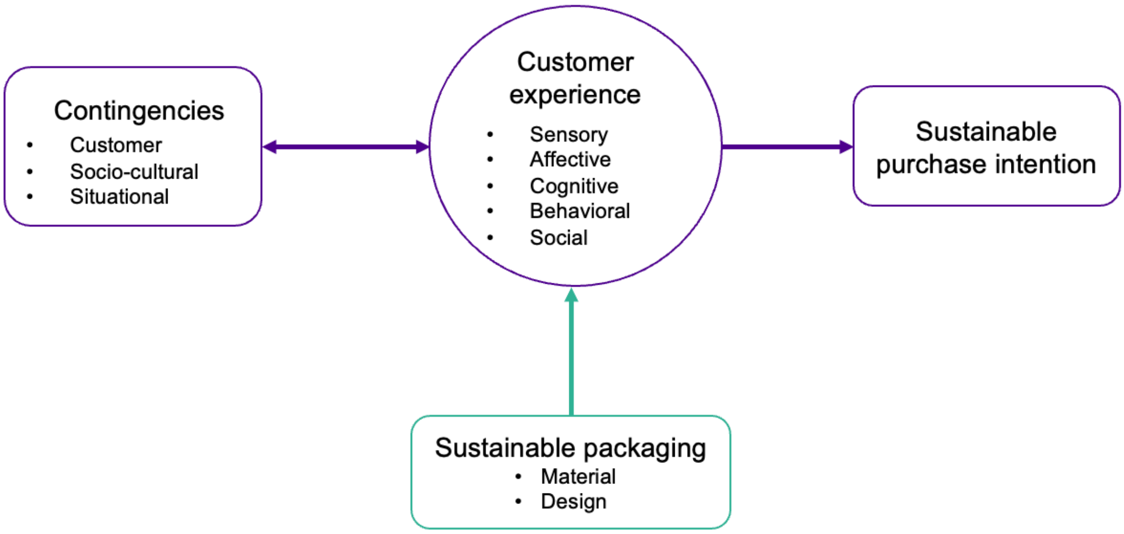


***Figure 4.*** *A priori framework*

Firstly, it's argued that customer experience mediates everything that influences purchase intention. Because customer experience includes all experience concerning the product or service; i.e. advertisement, someone recommending the product, experiencing the product in the store (Becker & Jaakkola 2020); purchase intention for a certain product cannot exist without experiencing it first. According to this theory, all factors that influence purchase intention actually influence customer experience, which, in turn, influences purchase intention. This view is the major difference between the a priori framework and existing literature, because the influence of contingencies and sustainable packaging have been connected directly to purchase intention in existing literature (e.g. Ahmed et al. 2022; Alvarez-Gonzalez et al. 2023). This framework, however, highlights the impact of customer experience.

In this framework it's theorized, that the impact of consumer contingencies and sustainable packaging can be reinforced or obstructed by customer experience, which can, thus, influence sustainable purchase intention positively or negatively. For example, the intention to choose a sustainable alternative in a store can be obstructed by the consumer's habit of preferring familiar products they have purchased before, although having highly sustainable values. In this case, the behavioral dimension of customer experience obstructs the path from contingencies to sustainable purchase intention. On the other hand, the experience can be reinforcing. A consumer might be prone to choose a more sustainable option because of, for example, social pressure experienced in the store or generally in their life.

Secondly, this view reinforces the relationship between customer experience and customer value that is implied in existing literature; customer value can be created by customer experience (e.g., Rintamäki et al. 2004; Becker & Jaakkola 2020). Because customer value is presented as a product of customer experience, it's incorporated into customer experience in the framework. An attractive design on a product, for example, is a source of customer value that is experienced in the store. Thus, customer value still influences sustainable purchase intention as existing research (Ahmed et al. 2022; Sener et al. 2022) suggests, but only through customer experience. This view also creates a clear difference between customer value that derives from the product, and consumers' personal values that are not a part of customer value but consumer contingencies.

Thirdly, it's theorized, that the key contingencies influence customer experience. The customer, situational, and socio-cultural contingencies are studied to influence value and purchase intention, but have not been linked to a comprehensive framework in existing literature. The contingencies have been studied in literature using different terms. For example, environmental awareness, knowledge, and concern, as well as personal norms and demographic variables are parts of consumer contingencies, that have an influence on purchase intention, according to literature (e.g. Jaiswal & Kant 2018; Choi & Johnson 2019; Panda et al. 2020; Suphasomboon & Vassanadumrongdee 2022). So-called situational customer value (Sener et al. 2022) can be seen as a situational contingency that closely influences customer value. Examples of studied socio-cultural contingencies are collectivism and long-term orientation (e.g. Nguyen et al. 2017; Sreen et al. 2018). Customer-based contingencies include consumer's own values and preferences, including environmental knowledge and concern (Choi & Johnson 2019; Rausch & Kopplin 2021). In this framework, it's argued, that these factors influence customer experience, and, thus, purchase intention indirectly.

Lastly, it's argued that sustainable packaging, like the rest of the factors, needs to be experienced to have an effect on sustainable purchase intention. Experiencing sustainable packaging can, thus, lead to sustainable purchase intention. For example, having an eco-friendly label on the packaging can, when experienced, influence positively on the purchase intention. In a similar path, the eco-label can also create customer value by informing the customer of the environmental impact of the product. The customer obtaining information from the packaging is an example of cognitive customer experience. It is further studied, that sustainable packaging can also influence contingencies, shifting customer mindsets from environmentally unaware to sustainable. This would mean that the influence of sustainable packaging can go up to contingencies through customer experience. This path is, however, outside if the scope of this research.

# 3. RESEARCH METHODOLOGY

This chapter introduces the research methodology of this study. Research design is presented in the first subchapter. The research design consists of case selection and framing, preliminary interviews, and focus group interviews. After this, data analysis methods are introduced. Lastly, the assessment on the quality of this research is presented.

## 3.1 Research design and data gathering

The aim of this thesis is to research how consumers experience sustainable packaging. The more specific objectives boil down to how consumer contingencies influence experience, and how experience influences purchase intention in the case of sustainable packaging. These objectives require research in two parts: preliminary research from the perspectives of the case company and industry, and research answering the research questions from the perspective of the consumers. The first part is researched by conducting preliminary interviews in the case company and industry. Becker and Jaakkola (2020) highlight this in their research as the role of the company, defining the intended customer experience and creating and monitoring different stimuli. The preliminary interviews give necessary information on the case product, market, and intended customer experience. After the case is familiar, the research questions can be answered by conducting consumer interviews.

The research starts with reviewing relevant literature on customer experience, value, and sustainable packaging. To explore the case packaging, preliminary interviews are conducted in the case company as well as with external specialists. The preliminary interviews cover information on the case packaging, including the case company's idea on how consumers experience the packaging. The data on the preliminary interviews can be found in chapter 3.1.1, and the case findings in chapter 4. After the case packaging is familiar, more literature is reviewed according to the gathered information and gaps in the current literature review. The consumer focus group interviews are conducted after the case and relevant literature are familiar. Information on the consumer interviews is presented in chapter 3.1.3. After the consumer data is gathered, it is analyzed from the viewpoint of the three research questions. The first two research questions are answered according to this data analysis. The third research question findings require an additional clustering process. The research question findings are presented in chapter 5. The research process and information flow is presented in figure 5.

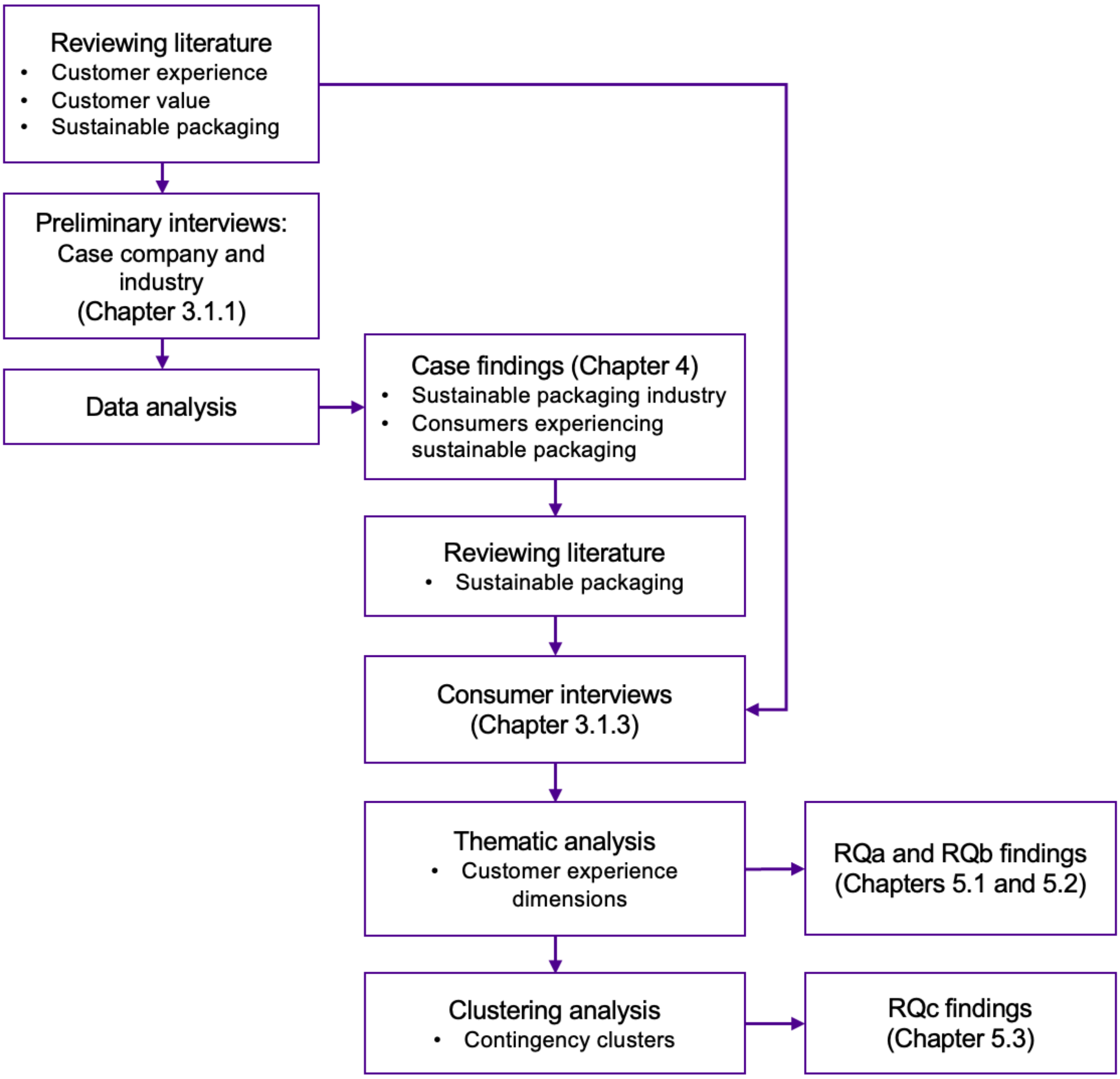


***Figure 5.*** *Research design: Abductive process*

The aim of this thesis is to research the relationship of customer experience and sustainable purchase intention by interviewing consumers. Because the interviews are conducted to analyze words and possibly behavior, this research is qualitative. According to Hirsjärvi and Hurme (2022), qualitative research highlights the interaction between the subjects. In this study, the interaction between the subjects is analyzed to highlight differences in the answers and to examine social impacts. Qualitative research is also suitable for studies that aim to look for patterns and concepts in the subjects' answers or behaviors (Hirsjärvi & Hurme 2022; Saunders et al. 2019, p. 180). The patterns in this research relate to the dimensions of customer experience as well as consumer contingencies, which are connected to reach overarching research results.

This research is conducted building on both existing literature and empirical findings, making it abductive research (Saunders et al. 2019, p. 153). The abductive process of alternating between reviewing literature, and collecting and analyzing data can be seen in figure 5. The method suits this research model, because the research starts with a comprehensive literature review, and aims to form an a priori framework based on existing literature. According to Saunders et al. (2019, p. 153) abductive research can be used to build theoretical themes that are located in an existing framework. The framework can then be tested and modified with empirical data (Saunders et al. 2019, p. 153).

This study is a cross-sectional case study, meaning the timespan is short. According to Saunders et al. (2019, p. 212) cross-sectional studies depict the situation as it is at that moment in time, and for case studies, this can be done by conducting the interviews over a short period of time. The meaning of case studies is to “identify what is happening and why”, and so create solutions or premises for action (Saunders et al. 2019, p. 197). The case packaging in this study is fiber-based flexible packaging, which is introduced in more detail in chapter 4.2 Case packaging. The aim of this study is to find out how consumers view fiber-based flexible packaging, specifically compared to similar plastic packaging. This study also aims to explain what contingencies influence these consumer views.

This research consists of semi-structured interviews to ensure participants bring out their own opinions and habits. According to Saunders et al. (2019, p. 179-180), semi-structured and unstructured interviews fit qualitative research. Hirsjärvi and Hurme (2022) suggest that one way to define semi-structured interviews is that the questions are set prior, but their order can change depending on the interview flow. The participants are also free to answer in their own words instead of choosing from a list of ready-made options (Hirsjärvi & Hurme 2022). Another term for this kind of interview is a theme interview (Hyvärinen et al. 2017; Hirsjärvi & Hurme 2022). On one hand, semi-structured interviews form enough structure to be able to combine interviewees’ answers into results, and on the other hand, they give the interviewees enough freedom to answer in their own words.

### 3.1.1 Case selection and framing

In this study, the focus is on fiber-based flexible packaging, which is one product category the case company manufactures to brand owners. The case packaging fits the research on two perspectives; fiber-based flexible packaging lacks research especially in the context of sustainability, and also fits the framework as a sustainable form of packaging. From the viewpoint of the case company, research on fiber-based flexible packaging is needed to form a consumer view on the packaging itself as well as its sustainability. Consumer opinions on flexible packaging lack research, and can be further studied through customer experience research. Thus, the packaging itself forms an interesting and practical case study in the field of sustainable packaging.

The packaging also fits the a priori framework, as it's considered a form of sustainable packaging. Thus, the path from consumer contingencies to customer experience to sustainable purchase intention can be studied in the context of fiber-based flexible packaging, and the influence of customer experience on consumers' sustainable purchase intention can be studied with the case packaging. Fiber-based packaging is also considered a more sustainable alternative specifically to plastic packaging, which means the two can be compared reliably. In this study, fiber-based packaging is compared to plastic packaging to compare consumer views on the sustainable and non-sustainable alternatives. This reinforces the validity of the empirical research and reduces behavioral bias considering the research on purchase intention.

### 3.1.2 Preliminary interviews on case company and industry

To form a comprehensive understanding of the case, preliminary interviews are conducted before the empirical research. This part includes interviews relating to the case packaging, as well as the case company and industry. The aim of this interview process is to gain necessary information from the perspective of the case company, such as the intended customer experience for the case product. Specialists both within and external to the case company are interviewed to ensure a holistic and versatile view of the industry. Data of these unstructured interviews are presented in table 3.

***Table 3.*** *Preliminary interview data*

| Interviewee | Company | Date | Interview channel | Interview themes |
|---|---|---|---|---|
| Customer service manager | Pilot extrusion plant | 23.5.2023 | Visit to plant | Case industry and challenges in sustainability |
| Production employees | Case company | 1.6.2023 | Visit to plant | Case industry and company |
| Senior product portfolio manager | Case company | 1.6.2023 | Visit to plant | Case packaging and product development, value chain, and sustainability |
| Sustainability manager | Case company | 8.6.2023 | Visit to headquarters | Case company, sustainability, and EU regulation |
| Senior lecturer, Built Environment and Bioeconomy | University of Applied Sciences | 9.6.2023 | E-mail | Case industry, and sustainability |

The external interviewees include a customer service manager in a pilot extrusion plant, and a senior lecturer in packaging fields. These interviews discuss the case packaging and the overarching packaging industry. In addition, the external interviews discuss sustainability in the packaging industry, as well as challenges in sustainability considering the case packaging. The case company interviews are conducted with production employees, a senior product portfolio manager, and a sustainability manager. These interviews discuss the case industry, company, and packaging. The case company interviews enable a deeper dive into the case packaging value chain, and product development, as well as consumer views on the case packaging. In addition, sustainability is discussed from the viewpoints of the case company and EU regulation.

### 3.1.3 Consumer interviews: Focus groups

Barbour (2007) highlights the importance of group interaction in focus group interviews. Group interviews can be conducted by asking all of the participants the same questions, but focus group interviews are supposed to bring out interaction and discussion within the group (Barbour 2007). This way, the similarities and disagreements between the participants can be studied. By this definition, Hyvärinen et al. (2017) consider every group interview a focus group interview, stating that group interaction is a necessary part of all group interviews. The part of the interviewer is to facilitate the discussion and ensure all participant's opinions are voiced (Hyvärinen et al. 2017). The size of the group is also a crucial choice. Hyvärinen et al. (2017) consider five to ten participants a good size for a group, and according to Barbour (2007), the group should have no more than eight participants. The smaller the group is, the more detailed and personal the narratives are (Barbour 2007). In this study, the group size is set to five, according to Hyvärinen et al. (2017) and Barbour (2007) suggestions.

According to Barbour (2007), focus groups should have a consensus view on the studied matters. Hyvärinen et al. (2017) suggest, that there should be differences in the participants' outlooks, but also a sufficient number of shared views so that discussion runs smoothly. The premises of Hyvärinen et al. (2017) are considered more suitable for this case, because differences in participants' outlooks create disagreements between the group and highlight differing views on the matters. Interviewees with differing educational backgrounds are recruited to ensure diversity in the results. According to Hyvärinen et al. (2017), studying how age, gender, and background affect studied matters might easily require 50-100 interviewees. Qualitative interviews, however, rarely aim to come up with statistically generalizable findings. The aim of this study is not to generalize findings according to socio-demographic background, but to find paths between consumer contingencies, customer experience and purchase intention in the context of flexible packaging.

The focus groups are divided based on place of residence and education level to create a sufficient number of similarities between interviewees. In addition, the place of residence of the Finnish interviewees is limited to one city to highlight other differences relating to consumer contingencies. The two Finnish interview groups are divided by education level of the interviewees; ongoing or finished upper secondary education, and secondary education. Because finding interviewees for the latter group turned out to be more difficult, this interview is split in two parts. The first part only includes two interviewees, and is extended with the second interview with a focus group of three interviewees. The international interviews are divided by place of residence, the first interviewee group being European, and the second group from outside of Europe. The European interview includes only four interviewees according to possibilities. The single missing interviewee is not replaced, because the value of one group interviewee is not crucial considering the integrity of this study. The data of the group interviews is presented in table 4.

***Table 4.*** *Interview data*

| Interview group | Date | No. of interviewees | Duration |
|---|---|---|---|
| Global: Europe | 1.9.2023 | 4 | 41 min |
| Finland: Upper secondary education | 21.9.2023 | 5 | 60 min |
| Global: Outside of Europe | 28.9.2023 | 5 | 81 min |
| Finland: Secondary education | 4.10.2023 | 2 | 50 min |
| Finland: Secondary education | 31.10.2023 | 3 | 50 min |

The interviewees consist of young consumers, the ages ranging from 17 to 26. The aim of the study is not to generate generalizable results based on the interviewees' socio-demographic attributes, but diversity between the interviewees is still crucial considering the validity and reliability of the results. Diversity is ensured in the interviewees' (1) educational stage and field, (2) place of residence between the international interviewees, (3) gender, and (4) circle of friends, according to possibilities. To ensure these differences and diversity between the interviewees, they are recruited using existing contacts. The attendances are motivated by offering a movie ticket for every interviewee.

The interviews are voice recorded and include a small introduction round so that every voice can be matched to the right interviewee. Hyvärinen et al. (2017) suggest, that voice recordings can be supplemented with video recordings or seating charts, if there are difficulties matching voices to the respondents. With groups of maximum five people, video recordings and seating charts turned out to be unnecessary. D'Astous and Labrecque (2021) highlight the importance of props when studying purchase intention. According to the researchers (D'Astous & Labrecque 2021), the validity of the study can be maximized when consumers are examining real life products. For this reason, the interviews include three pairs of plastic and fiber-based packaging. A packaging pair is selected with two packages that are as similar as possible, and hold similar products, with the only key difference being packaging material. Data of the pairs of packaging is presented in table 5.

***Table 5.*** *Prop packaging data*

| **Packaging category** | **Plastic pair material** | **Fiber pair material** | **Other differences** |
|---|---|---|---|
| Reusable wood fiber fork | Polypropene | Wood fiber, plastic | Color and print, product color, eco label in plastic packaging |
| Bread bag | Polyethylene | Paper, polypropene | Color and print |
| Snack biscuit | Polypropene | Wood fiber | None |

The fork and bread packages that are fiber-based include small clear plastic strips that show the product inside the packaging. Both packages can still be recycled as cardboard, because the amount of plastic is minimal. There are differences between plastic and fiber-based pairings in the fork and bread packaging categories with the color and print of the packaging. The plastic packaging for forks also includes an eco label. The bread packages originally include different kinds of bread, and the contents are emptied for the interview to ensure the products don't create bias in the interviewees' answers. The snack biscuit packages are identical with the exception of packaging material.

## 3.2 Data analysis

Data analysis is performed in multiple systematic stages. The analysis starts with a familiarization process, that helps with clarifying the initial data. This stage includes writing summaries and first thoughts on findings, as well as organizing all collected interview data on Excel sheets. The data is then further analyzed by color coding the answers based on the a priori framework. The color-coded groups include customer experience dimensions, consumer contingency groups, and packaging attributes. This stage is performed separately after every interview to ensure the interview guide is sufficient and matches the research objectives and questions.

The next stage includes the actual and profound part of data analysis. In this stage, thematic analysis on all interview data is performed by Atlas.ti, which is a qualitative data analysis software. According to Saunders et al. (2019, p. 651), thematic analysis is a general tool in qualitative data analysis, that's used for finding reoccurring themes and patterns in the data. The data is coded in roughly five categories; basic information on the interviewees, consumer contingencies, customer experience dimensions, purchase intention, and packaging attributes. This part of data analysis still overlaps with data collection. After all data is coded, the codes are matched to each other with code relationships. In addition to manual coding, the software features used to analyze data include focus group coding, code networks, as well as code co-occurrence and code-document tables.

As the data is comprised of spoken information, the experience dimensions must be interpreted accurately. The sensory dimension is typically reasonably straightforward in this analysis, as the interviewees refer to a specific sense. The cognitive and affective dimensions typically require deeper interpretation in most instances. There is, thus, space for interpretation in all of the overlapping dimensions. For example, the word “feel” is typically used to express emotion, but in some instances can actually mean cognitive thinking, or the sense of touch. To demonstrate the interpretation, there are a few examples: “Anything that looks like plastic feels negative or bad.” is categorized to the affective dimension, as it expresses a negative feeling. “I just feel like plastic is not sustainable.”, on the other hand, is considered a cognitive thought. “This really feels like one of those degradable plastics…” is considered sensory, as the interviewee is touching the packaging while giving the statement. Thus, the experience dimensions are interpreted based on the context of the discussion at the time, as well as the specific wording and responses to follow-up questions.

Code relationships are made with two separate perspectives; from the viewpoint of the interviewee and the customer experience dimension. The interviewee-based coding supports the results that intend to find paths from consumer contingencies through customer experience to purchase intention for each individual person. This coding system, thus, aims to answer to the third research question. The experience dimension -based coding includes all specific codes and code relationships that emerge from the experience dimensions. This coding system aims to answer the first two research question, as well as support the specific findings that do not fit the framework, or are set outside the initial research questions.

After coding the data, the consumer contingencies are assessed from the viewpoint of sustainability. Because the situational contingency comes down to the situation in the store in the case of purchase intention, this contingency is outside of the scope of this research. Thus, only customer and socio-cultural contingencies are studied. Customer contingencies include individual's knowledge and attitude towards sustainability. In more detail, sustainability knowledge is assessed by how well the individual understands the broad view of societal and environmental sustainability, as well as understanding how one can contribute to sustainability in their everyday lives. The attitude on sustainability includes how much sustainability is considered in one's daily life, such as purchasing, sorting, transportation, and other habits. The socio-cultural contingencies are assessed by establishing how sustainability-oriented the interviewee's home country and social circles are. According to these contingency assessments, the interviewees are divided into five groups ranging from high to low sustainability orientation in contingencies.

These groups are further clustered by assessing the similarities and differences of the groups based on customer experience. According to Henry et al. (2015), clustering can guide theory in qualitative research by identifying possible subgroups and creating systematic data exploration. Because clustering brings a quantitative approach to qualitative research, it can create clearer results for complex data (Henry et al. 2015). Because the data is qualitative, the assessment of the groups is highly dependent on the researcher, which can create bias. Clustering, thus, supports the validity of the research by reducing the number of contingency groups and bringing customer experience similarities into them. The clustering process combines groups one and two, as well as groups three and four, as the experiences in these groups are highly similar. The first two groups, for example, experience through the cognitive dimension, making them similar in the context of this research. The clustering creates three distinct clusters, that range from high to average to low sustainability in consumer contingencies, and have distinct customer experiences compared to each other.

## 3.3 Research quality assessment

To ensure the high quality of this research, the validity and reliability are assessed. According to Saunders et al. (2019, p. 214), there are three views on research validity: the chosen phenomenon is measured with the right measurements, the analysis is accurate, and the findings are generalized truthfully. To ensure that customer experience is measured correctly, the consumer interviews are conducted after an exhaustive literature review on customer experience. In addition, preliminary interviews are conducted with experts to obtain a comprehensive view on the case packaging, company, and industry before the consumer interviews. The accuracy of the data analysis is reinforced with data triangulation. Data triangulation can be conducted by using structured and unstructured data (Thurmond 2001), and is performed with the preliminary interviews as well as the consumer interviews. To further ensure the accuracy of the data analysis, the interviews are audio recorded, and a qualitative data analysis software is utilized.

A study is reliable, if it will have the same results when replicated (Saunders et al. 2019, p. 213). One bias that limits reliability is participant bias. Participants can willingly or unwillingly give false responses in interviews deteriorating the quality of the research (Saunders et al. 2019, p. 214). To prevent this bias, there are multiple interviewees representing a socio-cultural group. When recruiting participants, it is also ensured that they are willing to share their experiences and opinions in the group interviews. As the interviews start, an open atmosphere is set and the questions are framed not to arouse defense or excuses in the responses. Focus group interviews also open the space for discussion and sharing, rather than forming a one-on-one interrogation.

The optimal point of data collection is saturation. According to Hennink et al. (2017), saturation is “the point in data collection when no additional issues or insights emerge from data and all relevant conceptual categories have been identified, explored, and exhausted”. A smaller sample size can reach saturation in research, that, for example, aims to capture themes, has a homogeneous population, and has thick data (Hennink et al. 2017). As this research fits the mentioned attributes, a smaller sample size is justifiable. Various themes in this research became saturated in the data analysis phase. For example, the sensory and cognitive experience dimensions became saturated with the used sample size. However, some themes, such as the affective dimension, did not reach saturation, which creates limitations to this study.

# 4. CASE OF SUSTAINABLE FLEXIBLE PACKAGING

This chapter introduces the case context of this study. Firstly, the basics of the case company are introduced as well as the group the case company is a part of. Next, the case packaging is introduced from the viewpoints of the case company, brand owner, and consumer. Thirdly, the regulatory effects on the packaging in the EU are described.

## 4.1 Case company

The case company is part of a large Finnish forest industry group. The group has a revenue of €10 billion, and 17 000 employees in 44 countries. The group consists of different businesses, that utilize wood and its production side streams in different forms. In total, the group produces sustainable wood-based products from manufacturing and transportation to packaging and labelling to energy and biomedicals. Considering responsibility, the group is stated to be an industry leader with multiple awards and certificates on the matter. Sustainability is considered to be a primary focus within the company, as sustainability goals are set across all functions. According to the group, the most significant megatrends driving change in the industry are increasing middle class (and increasing amounts of waste), resource scarcity, and climate change. These challenges are tackled with climate-positive forestry, renewable materials and energy, cleaner fuels, and circularity. To ensure transparency, the group also states that full supply chains are monitored and developed to be more sustainable. The typical supply chain includes nursing and managing forests, trading and harvesting, logistics, paper mills, and power plants.

The case company produces paper products in the forms of packaging, labelling, release bases, and fine papers. Release bases are used as the background of a stickers or labels, and fine papers mean graphic and office papers, typically used in magazines, catalogues, and advertising materials. The revenue of the case company reached €1,6 million in 2022, and they employ about 2000 people. The materials are sourced from four paper mills globally. The case company typically sells its products to brand owners, who define terms of the end products. Being part of a group, the case company naturally follows the group's sustainability guidelines and goals. Considering the case company's business areas, the goals including forestry and materials are the most significant. The case company highlights that their priorities are sustainably managed forests, 100% renewable materials, highest product safety standards, and design fit for recycling. The target is to be ahead of all upcoming EU regulations.

In recent years, product development has shifted towards bio-based materials. The goal is to turn all of the case company's production to bio-based materials by 2030. According to the interviews, this goal is highly conceivable, and would probably take minimum of five years. In addition to bio-based material, the products will be designed to be recyclable and biodegradable. The barriers and limitations to this shift are still significant. Firstly, the product attributes must match the ones for the old plastic products, which are difficult to maintain with bio-based materials. According to an external expert, bio-based materials are extremely difficult to handle and need their own kind of technology, which is still being developed. Another barrier to the shift is scalability from pilot factories to mass production. This means production will also be significantly more expensive in the beginning, and the rate of which production can be scaled bigger determines the price of the products.

## 4.2 Case packaging

According to the case company, flexible packaging is made of material that is flexible and form-fitting, and can be shaped without breaking the material. The materials are typically fiber-based, plastic-based, or contain both. Flexible packaging is also prescribed as thin, and easily manipulated into different shapes and kinds of packages. The product development and design combines regulatory and business perspectives, as the company has to work closely with the EU and the brand owner. Regulations determine the minimum requirements for packaging safety and sustainability in the material choices as well as production. In addition to the EU regulations, nations typically have their own directives. The impact and demands of the EU regulations are presented in the following chapter: 4.3 EU regulation shaping sustainable packaging.

On top of the regulatory view, the company has its own goals for product development. The company's goals typically control the day-to-day actions and development, as the regulatory standards depict long-term objectives. Brand owners largely determine the day-to-day goals by their demands and desires. According to interviews, large brand owners have their own packaging specialists, who are closely in touch with packaging product development in the case company. Some companies are directly in touch with the case company, some indirectly. Brand owners that have the means, make up their own prototypes and that way show their demands to the packaging manufacturers. In addition to the brand owners, consumers, retailers, transportation, and the end product developer typically have their own demands for the packaging, which makes product development more complicated. Especially if the demands don't match, product development needs to figure out the priorities and the direction before meeting individual demands. Because sustainability is increasingly important to companies and consumers, the regulatory, brand owner, and consumer demands typically align relatively well.

Consumer demands and desires are in the interests of both the case company and the brand owners. Some of the most significant consumer demands derive from specific product attributes. In the preliminary interviews, these attributed boiled down to touch, visuals, functionality, and recyclability. Specifically, natural-looking packaging is valued highly, and the look can be achieved with, for example, brown and green colors. The functionality of the packaging includes protecting and preserving the product, as well as ensuring food safety. Recyclability includes using renewable and responsible materials, especially avoiding plastic, making recyclable product designs, and compostability. Functionality and recyclability typically work against each other in packaging, because the attributes that increase recyclability tend to decrease functionality. For example, using renewable materials, such as wood fiber, typically makes it harder for the packaging to hold liquids, fats, and smells. The use of ink also affects recyclability, which can lead to sustainable packaging looking duller and less appealing.

Some consumer socio-demographics, attitudes, and values can also influence the purchase intention of certain packaging. According to the interviews, education level highly affects consumer behavior. Consumer attitudes and values are also highlighted as significant indicators of sustainable purchasing. Especially in Finland, domestic products are valued higher than others, with different quality and price demands influencing purchase. In addition, consumers value some aspects defined by the brand owner, such as placement in the store and brand name. There are also specific trends in consumer purchasing behavior, that affects the packaging market. The most significant one is the decreasing size of packaging. Because households are getting smaller, so are the packaging options in multiple product groups. This also increases the variety in packaging sizes, as some consumers still want to buy bigger packages, which leads to products taking up more shelf space in stores. When it comes to material, European consumers typically find fiber-based packages sustainable, and have mixed feelings about plastic.

Although recyclability is widely studied to increase customer value, consumers do not always act on their values. According to Statista's (2023), paper and cardboard had the highest recycling rate by material in the EU in 2020: 81,5%. In Finland, paper and cardboard is one of the few materials that do not end up in landfills, but is recovered as usable material or energy (Statistics Finland 2021). According to a sustainability expert in the case company, fiber can circulate about 5,5 times before significant deterioration. When the number has reached its limit, fiber can still be used for less demanding applications, such as toilet paper. Plastic, on the other hand, can typically circulate about two times before losing its form. Recycled plastic can also not be used as the same material as the original product, but circulated straight to less demanding applications that are typically substantially thicker and less intricate. This only applies to mechanically recycled plastic: chemical recycling has the ability to make recycled plastic products that are close to the original ones. However, there is a lack of infrastructure to chemically recycle substantial amounts of plastic. For fiber, the infrastructure already exists, because of the easier technical side and existing market for recycled products.

According to an expert, the biggest motivator for sorting among consumers is money. For example, the deposits for PET and Palpa bottles in Finland increase recycling rates, because it motivates consumers to circulate the bottles back to regain the deposit. The biggest barrier to sorting waste is lack of infrastructure: if there is no place to sort the waste nearby, consumers are unlikely to bother and see extra effort. Convenience is, thus, another significant motivator in consumer sorting behaviors. Another barrier derives from lack of knowledge. Sometimes consumers are not aware of sorting benefits or practices. For example, consumers that do not know if packaging should be washed before sorting or what the packaging is made of are less likely to sort the packaging at all.

## 4.3 EU regulation shaping sustainable packaging

Changes in the packaging industry are largely dictated by regulatory organizations. The EU determines the future direction of packaging with the upcoming Packaging and Packaging Waste Directive (PPWD). The primary goal of the directive is to minimize the environmental impact of packaging while maintaining health and safety requirements. The directive covers all packaging that is placed on the European market and all packaging waste in the area, regardless of purpose of use or material. (EUR-Lex 2023) The new revision to PPWD was put forward in November 2022 (European Commission 2023a), and is still in the making. The PPWD was originally entered into force in 1994, and has had multiple amendments since then (European Commission 2023a). The new revision will be the first comprehensive and fundamental change to the 1994 directive, which makes it increasingly significant in the packaging industry.

The new revision aims to shift the packaging industry into a more sustainable direction. In short, the revision states that packaging weight and volume must be minimized in order to use as little material as possible. The content of hazardous substances and materials must also be minimized, including all packaging components whether they are manufactured in the EU or not. The packaging must also be designed for reuse or recovery, extending from direct reuse to recycling to energy recovery. The new PPWD specifically determines the recycling rates for packaging overall and according to material. By the end of 2025, at least 65% of all packaging (by weight) must be recycled, including 75% of all paper and cardboard. By the end of 2030, the numbers are 70% and 85%, consecutively. (EUR-Lex 2023)

According to a sustainability expert in the case company, regulations like the new PPWD are formed by interacting with the industry. Individual companies do not directly have a say on the process, but larger organizations form and pass on the opinions and capabilities of the companies. On the commenting rounds, individual companies can also present their statements. Naturally, interacting with the affected companies and industries is crucial when making regulations. According to the expert, the situation could also be improved by listening more to the industry to prevent unexpected changes. Hearing out the industry opinions could also happen in an earlier state. As of now, the practical implications of the new PPWD are still unclear, as the directive will likely dictate overall national goals and limitations, and the nations will, in turn, make their own rules or legislations based on the EU regulation.

In addition to material minimizing and design requirements, there are some more specific aspects to the new PPWD that especially affect the case company. The new PPWD specifically aims to reduce the use of single-use plastics and the dissolution of microplastics. Full plastic packaging can in many cases be replaced with fiber-based flex packaging, but fiber-based materials also typically include a small amount of plastics or other materials to improve durability. The amount of added material together with the packaging design, however, ensures the packaging can still be recycled as fiber. This means that the upcoming regulation both limits the materials that can be used to make fiber-based packaging, but also creates new market for it by slowly eliminating single-use plastics. In addition, the new PPWD ensures all green claims and labels must be universally understandable, and all packaging must provide instructions for sorting, as well as information on plastic recycled content, and reusability. This will prevent false accusations of ecological materials or production, that still currently misguide consumers.

Because the regulatory demands and customer value are both centered significantly around sustainability, there are a lot of packaging attributes that match both. According to the sustainability specialist, food safety and recyclability claims typically derive from regulation, and emission and carbon footprint targets can be caused by the aim to increase customer value. There are also additional specific certifications, that customers can demand or value from a supplier. For the case company, these certifications especially include responsibility in forestry.

# 5. RESULTS

This chapter introduces the results of this study. The results are divided into three parts according to the research questions: (1) what consumers experience as sustainable in packaging, (2) experience dimensions influencing sustainable purchase intention in the case of sustainable packaging, and (3) customer experience influencing the path from consumer contingencies to sustainable purchase intention.

## 5.1 Consumers experiencing sustainability in packaging

Because the experience dimensions can trigger each other in the complete experience, the dimensions are introduced in the order of which they get triggered: starting with sensory, followed by cognitive, social, affective, and lastly behavioral dimension. This triggering order stems from the interview data, depicting in which order the interviewees experience the different dimensions. For example, the sensory experience is the first one to be triggered by the packaging itself. The cognitive dimension is typically triggered by the sensory dimension: for example, the visuals, touch, and auditory senses can trigger a cognitive deduction of what the packaging material might be. The social dimension is typically triggered by other people, and thus not significantly triggered in the interview setting.

In the interviews, the affective dimension is triggered by sensory, cognitive, and social dimensions. Considering the sensory dimension, the things that evoke feelings are visuals and noise. Smell can also trigger a negative feeling when connected to waste, but this did not occur in the interviews as the packaging do not have a distinct smell. The cognitive dimension includes determining the material, which can then trigger emotions; typically paper evokes positive and plastic negative feelings. Social motivation also triggers positive feelings, as pressure triggers negative ones. The behavioral dimension is not clearly triggered by any other dimension, as habitual purchasing can happen without these experiential connections.

Sustainability can be experienced through all five experience dimensions. According to the interviews, sensory, cognitive, and affective dimensions are dependent on packaging attributes: interviewees connect statements in these dimensions to certain attributes in the packaging, such as color or material. Behavioral and social dimensions, however, are not connected to packaging attributes, but interviewees experience these dimensions in relation to their own attributes, or consumer variables. In this chapter, the dimensions are divided into two categories based on the interviews. The packaging attributes according to sensory, cognitive, and affective dimensions are presented in table 6. The consumer variables according to behavioral and social dimensions are presented in table 7.

***Table 6.*** *Sustainable packaging attributes in sensory, cognitive, and affective experience*

| **Experience dimension** | **Dimension characteristics** | **Sustainable packaging attributes** |
|---|---|---|
| Sensory | Visual and touch | Brown and green colors, natural prints, dim prints, compact, papery feel, rough surface |
| Cognitive | Determining material sustainability | Papery, unambiguous, easy to sort |
| Affective | Positive and negative feelings | Papery, unambiguous |

Visually, the interviewees think brown and green colors, as well as natural and dim prints make packaging look more sustainable. Brighter prints are associated with plastic, even if the packaging material is sustainable. Compact packaging is also said to be more sustainable, as it uses the least amount of material. The interviewees also think a papery feel and rough surface bring a more sustainable feel to the packaging. Interestingly, the eco-label in the plastic packaging does not arouse a perception of sustainability, but either goes unnoticed or arouses suspicion in the interviewees.

On the cognitive dimension, the experience naturally boils down to determining the sustainability of the material. Here the interviewees think a papery material is more sustainable than a plasticky one, but ambiguity can also change this perception. For some interviewees, the papery material that does not resemble paper is too ambiguous, making it hard to figure out the material. Thus, the sustainability of the material is also difficult to determine. Unambiguous materials are also hard to sort, which makes them seem less sustainable according to some interviewees. A material that is easy to determine and sort is, thus, more sustainable in the eyes of the consumer.

Sustainability can reach as deep as the feelings of some consumers. On the affective dimension, papery materials clearly arouse positive feelings, as plastic arouses negative ones. This is a common and fairly intuitive response in the interviewees, as it doesn’t require a cognitive thought on what is sustainable. The confusion on what truly is sustainable, however, also arouses negative feelings in the interviewees, as there is too much contradictory information. The ambiguity of the material is, thus, also a negative attribute according to the affective dimension.

***Table 7.*** *Consumer variables in behavioral, and social experience*

| Experience dimension | Dimension characteristics | Consumer variables |
|---|---|---|
| Behavioral | Habits | Purchasing and sorting habits |
| Social | Pressure and motivation | Response to social factors |

The perception of sustainability is also tied to consumers' behaviors. On the behavioral dimension, purchasing and sorting habits are closely tied to the perception of sustainability. Interviewees that don't sort their waste don't feel the need to think about packaging material on a daily basis, which reduces the significance of packaging sustainability in their life. The interviewees that do sort, on the other hand, think more about material waste, and, thus, how sustainable the material is. The purchasing habits of interviewees also vary a lot, as some consider sustainability in almost each purchase, and some rarely think about it at all. The perception of sustainability and sustainable purchasing is, thus, connected to the existing habits.

On the social dimension, the perception of sustainability can change depending on pressure and motivation. Motivation coming from one's close social circles can, according to the interviews, influence one's perception on what is sustainable. For example, one interviewee states that they started to notice and reduce the use of meat and dairy in their diet after frequently interacting with a friend that's vegan. Some interviewees state that the motivation must be strictly informative and non-pressuring to influence their perceptions on sustainability. The effect of social pressure is more complicated, as it may affect the interviewees in the big picture, but not in individual choices. Most interviewees state that they don't feel pressure towards sustainability, or try to ignore it completely.

## 5.2 Experience dimensions influencing sustainable purchase intention

In this chapter, the influence of customer experience on sustainable purchase intention is introduced by going through the different dimensions. The influence is analyzed by comparing how different dimension components lead to choosing either wood fiber or plastic packaging, with wood fiber being the more sustainable option.

### 5.2.1 Sensory experience

The sensory experience is the first experience dimension that gets triggered when encountering a product or packaging. Typically, the first sense to be triggered is visual. Thus, the visual sense is the most common when determining purchase intention in this study, followed by touch and auditory senses. Taste can also influence purchase intention, but smell has no effect in this study, possibly because the packages in question do not have a distinct smell. In addition to triggering other experience dimensions, the senses can trigger other senses or influence purchase intention directly. According to the interviews, the visual sense triggers touch and taste. Taste is naturally triggered by visuals, as the interviewees can not taste the actual products in the interviews. Touch is typically triggered if the material of the packaging is ambiguous, and further investigation is needed to determine the material. Auditory sense is triggered by touch, as the touching leads to rustling of the packaging. The interviewees' remarks on the sensory experience influencing purchase intention are gathered in table 8.

Visually the direct positive effect on purchase intention is a visually pleasing or natural looking packaging. In packaging design, the natural look is typically formed with green and brown colors, as well as wooden or other natural looking prints. The packaging material also affects the look, as plastic has a smooth shiny surface and wood fiber a rougher and more natural one. Visuals can influence the purchase intention of both plastic and wood fiber packaging, depending on the interviewee's personal preference. However, a papery or natural looking packaging is more likely more sustainable, which makes visuals a positive influence on sustainable purchase intention.

Considering touch, a papery feel is an attribute that directly leads to a positive purchase intention. Interviewees typically choose anything over plastic, so a papery material and surface lead to a positive purchase intention. Material thickness also comes to play when touching the packaging. According to the interviewees, thin plastic packaging looks cheap and frail, and can thus trigger a negative purchase intention. Better taste also influences purchase intention directly, and depends on the interviewee's personal preference on the packaging. For example, some interviewees connect brighter and darker prints to better taste, while others prefer lighter and dimmer prints. Loud rustling of the packaging influences purchase intention negatively, as quieter packaging is preferred by some interviewees.

***Table 8.*** *Sensory experience influencing purchase intention*

| **Sensory experience** | **Remarks that influence purchase intention** | **Data examples** |
|---|---|---|
| Visual | Natural colors | Interviewee chooses wood fiber packaging because it looks environmentally friendly because of the brown paper<br>"Anything that looks like cardboard is positive."<br>"[I'll choose wood fiber] because of the cardboard, and paper, and just the color."<br>Interviewee thinks the natural colors on wood fiber packaging make it look more sustainable |
| | Natural print | "The wood print does something with me, [a feeling that] it's well made"<br>"Just visually for me [wood fiber packaging] looks more sustainable" |
| Touch | Surface smoothness | Interviewee thinks a matte finish on plastic makes it look more sustainable<br>Interviewee chooses plastic packaging because it has a smoother and shinier surface<br>"Because [wood fiber packaging] looks shabby it looks sustainable" |
| | Papery feel | Interviewees choose wood fiber packaging because it's papery<br>"[I'll choose this] just because it's paper"<br>"This one is more papery" |
| Auditory | Rustling | "[Rustling] feels more plastic, it's not as nice to hold and to look at"<br>"For me [rustling] only screams more plastic"<br>"It does make a difference for me, I would rather take a more compact packaging that does not make noise" |
| Taste | Better flavor | Interviewee prefers a darker print because it resembles a better taste<br>"I would take the lighter one, but I think it's more about the taste"<br>"For me the dark one just seems like more rich flavor" |

Considering sustainable purchase intention, wood fiber packaging receives positive purchase intentions by the visual and touch senses, as interviewees tend to choose papery looking and feeling packaging. Taste and auditory senses, on the other hand, do not have a direct effect on sustainable purchase intention, as the choices based on these senses are directed towards both plastic and wood fiber packaging. The sensory experiences and packaging attributes that have a significant influence on sustainable purchase intention are depicted in figure 6.

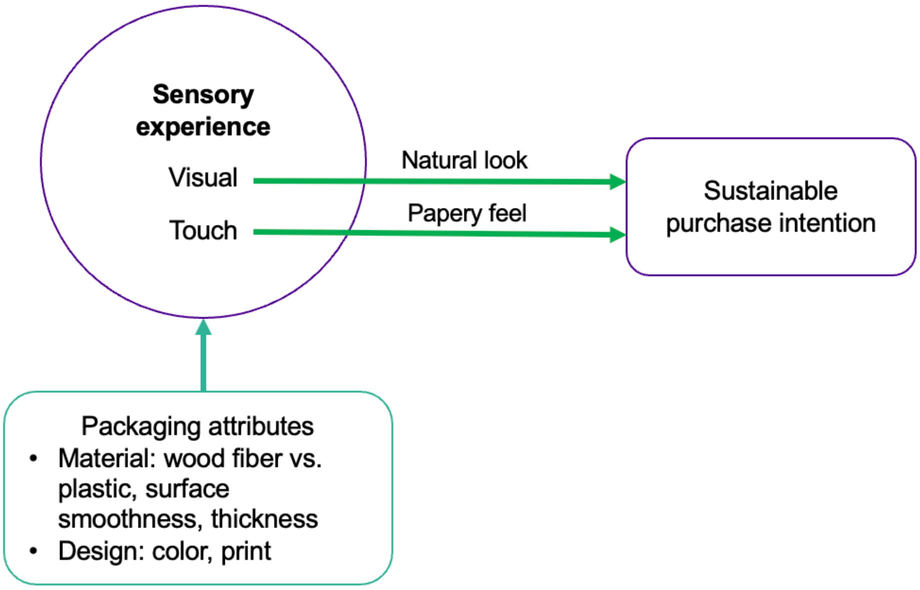


***Figure 6.*** *Sensory experience*

### 5.2.2 Cognitive experience

The cognitive experience is the most common experience dimension to determine purchase intention. The cognitive components that influence purchase intention can be categorized into packaging functionality, determining the material, and determining the sustainability of the material. Functionality is the first one to determine purchase intention. According to the interviewees, packaging needs to be easy to open and close, as well as preservable and durable. Functionality typically depends on the packaging material. Some interviewees prefer plastic because it seems more durable, and some prefer wood fiber because it seems easier to rip open. The choices based on packaging functionality lean towards plastic simply because if the functional targets are met, the cognitive experience moves forward to determining the material of the packaging. Thus, functionality is not seen as a negative influence on sustainable purchase intention, but the first cognitive deduction that the interviewees have about the packaging. The interviewees' remarks on the cognitive experience influencing purchase intention are gathered in table 9.

***Table 9.*** *Cognitive experience influencing purchase intention*

| **Cognitive experience** | **Remarks that influence purchase intention** | **Citation examples** |
|---|---|---|
| Functionality | Easy to open and close | Interviewee states the wood fiber packaging is terrible to re-close<br>“I would have chosen [the plastic packaging] just because I hate to reseal [the wood fiber] bags”<br>Interviewee states that plastic packaging is easier to rip open<br>“I feel like the cardboard would be more trust-worthy, like open more effortlessly” |
| | Durable | “With a snack bar usually it goes with you – so I think the plastic is more durable in that case”<br>“I would take [the plastic packaging] because of water, if [wood fiber] gets wet it’s waste” |
| Material | Paper | Interviewees choose wood fiber packaging be-cause the material is “paper”<br>“I would [choose] paper because it’s just some-how in my mind that we should reduce plastic” |
| | Plastic | “I mean realistically if I was in a store just like making a decision, I’ pick [the plastic packag-ing]”<br>“In general the products that are already pack-aged – I usually go for plastic” |
| | Recycled plastic | “It feels like biodegradable”<br>“What it looks like is greenwashed plastic”<br>“Maybe [plastic packaging] is mixed with some-thing else, it doesn’t look like it’s pure plastic” |
| Sustainability | Paper is more sustainable | “[I would choose paper] because it looks envi-ronmentally friendly”<br>Interviewee states that they prefer wood fiber packaging because it’s smaller and thus uses less material<br>Interviewees state that the sustainable feeling comes from paper as a material<br>“Because it has been advertised to us that pa-per is better than plastic” |
| | Plastic is more sustainable | “I know I could put [the plastic packaging] in plastic recycling”<br>Interviewees state that the plastic packaging is easier to recycle, which makes it sustainable |

When determining the material, the interviewees prefer wood fiber over plastic. The packaging attributes that affect this part are the used material and its surface smoothness. Papery material and surface are preferred by most interviewees, and these attributes lead to a positive purchase intention of wood fiber packaging. The cognitive deduction can also go further into determining how sustainable the material is. In these deductions, the interviewees collectively determine wood fiber as the more sustainable alternative in every case. Thus, determining the sustainability of the material positively influences the purchase intention of wood fiber packaging.

Material sustainability is determined by both packaging material and design. Considering material, the interviewees see wood fiber as more sustainable, but the ease of sorting the packaging and material ambiguity can also affect purchase intention. These more complex evaluations on sustainability include considering if a plastic material is recycled or mixed with other materials because of its matte surface. This consideration then raises the question if the plastic packaging is a more sustainable alternative, or just greenwashed to look sustainable. The plastic strip on wood fiber packaging also creates suspicion, as sorting the packaging is no longer intuitive for the interviewees. Thus, the plastic strip in other than plastic packaging can lead to a negative purchase intention.

Considering packaging design, natural looking colors and prints can create a sustainable look. Some interviewees also consider the amount of material used, preferring the more compact option. The eco label placed on the plastic packaging creates distrust and suspicion among the interviewees, as it does not include an explanation on why the packaging is the more ecological option. The eco label does not, thus, have a positive influence in purchase intention. Considering sustainable purchase intention, determining the material and the material sustainability lead to a sustainable purchase intention, as these considerations lead to the interviewees choosing mostly wood fiber packaging. The cognitive experiences and packaging attributes influencing sustainable purchase intention are depicted in figure 7.

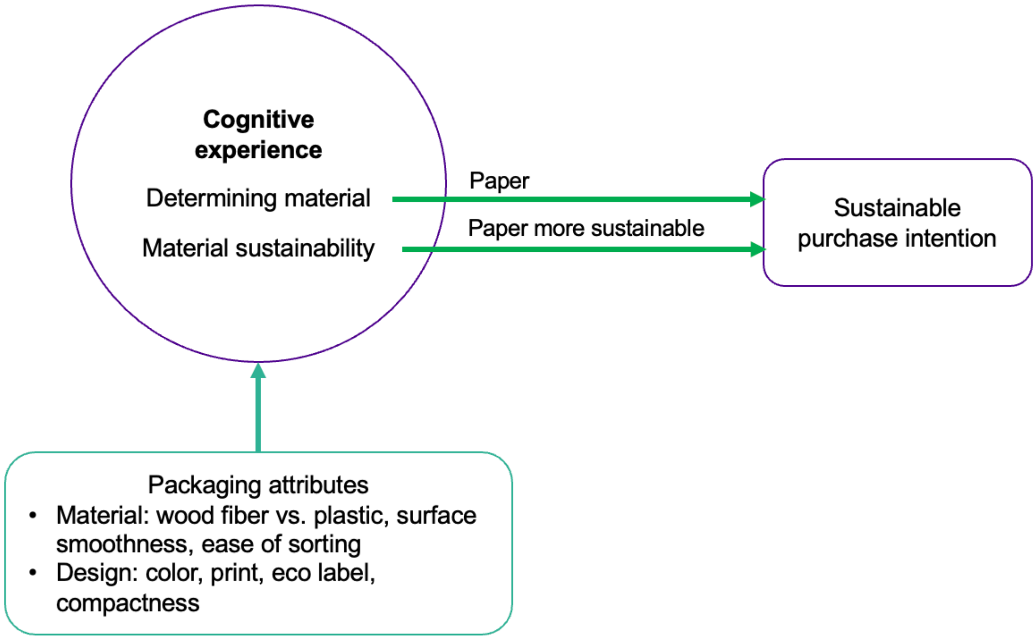


***Figure 7.*** *Cognitive experience*

### 5.2.3 Social experience

Most interviewees do not recognize a social pressure towards sustainable purchasing. The ones who feel pressure, are also inclined to ignore it rather than acting because of pressure. Social motivation, however, does influence most interviewees. Motivation is the most effective when coming from trusted individuals, such as friends or family. Motivation coming from outside one's social circles is also typically ignored. Considering brand owners and other organizations, the way to make public announcements and advertisements motivating to consumers is to include purely informative content instead of motivational slogans. Younger and more social media affected interviewees also identify an anti-sustainable pressure coming from social media, that encourages people to consume more. This pressure is more likely to influence consumer behavior, as it's harder to ignore, according to the interviewees. The interviewees' remarks on the social experience influencing purchase intention are gathered in table 10.

***Table 10.*** *Social experience influencing purchase intention*

| Social experience | Remarks that influence purchase intention | Citation examples |
|---|---|---|
| Motivation | Social circles | "For me it can affect if it's encouraging –– but if they scold me then I'll probably reject it"<br>Interviewee states that the motivation coming from their close circles affects them<br>"I do feel like my friend group is really into a lot of topics that are good for society, including |

| | | |
|---|---|---|
| | | sustainability, so if they're all like that then I'm going to follow it"<br>"I do think that's like motivated me, it didn't change my opinions but it's motivated me more to act sustainable"<br>"From home there has come a strong [motivation], I feel like I should be very sustainable as a person" |
| | Unknown people | "If some outsider comes to [give instructions] it goes in one ear and out the other" |
| Pressure | Sustainable pressure | Interviewees state that they do not feel social pressure towards sustainability<br>"I have a tendency that when I feel pressured to do something, I do exactly the opposite, even regardless of that I do feel quite a lot of social pressure to be sustainable in every aspect of life"<br>"I mean probably [feel sustainable pressure], but I feel social pressure about a lot of things, and I try to ignore it if it doesn't align with what I'm thinking" |
| | Anti-sustainable pressure | Interviewees feel like the pressure coming from social media is the opposite of sustainable<br>"[Social media] influences to less sustainable actions"<br>"[The pressure from social media is] to consume clothes all the time" |

Social motivation influences sustainable purchase intention positively, as it encourages the interviewees to consume more sustainably. Social pressure, however, does not influence sustainable purchase intention positively, according to the interviewees. Pressure is typically either ignored or can lead to acting in the opposite way, such as choosing not to sort waste. The pressure to consume can also influence sustainable purchase intention negatively. Thus, social pressure might have a negative overall effect on sustainable purchase intention. The social experiences influencing sustainable purchase intention are depicted in figure 8.

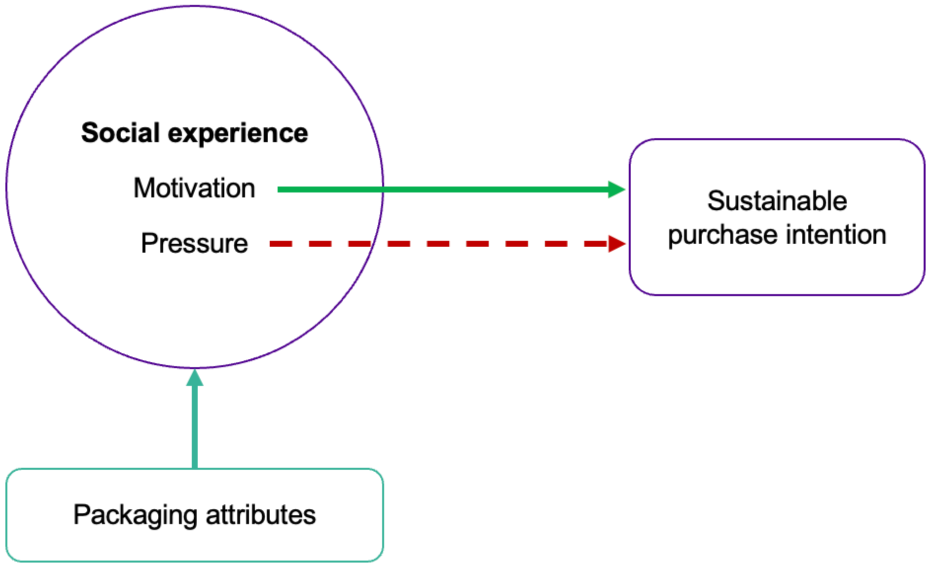


***Figure 8.*** *Social experience*

### 5.2.4 Affective experience

The affective dimension is highly influential, as it always influences purchase intention when registered by the interviewees. This dimension does not trigger other dimensions, but is typically the final dimension to be triggered. Sensory, cognitive, and social experience dimensions all trigger the affective dimension. Derived from the hierarchy of consumer emotions (see Laros & Steenkamp 2005), the positive feelings can be categorized into pleased and contented, and the negative feelings to irritated and frustrated. Considering the sensory dimension, visuals connected to plastic trigger irritation in the interviewees, as visuals connected to paper trigger a pleased response. Loud rustling can also trigger irritation. Similarly on the cognitive side, plastic triggers irritation and paper typically pleased or contented responses. The mixed and confusing information on plastic not being sustainable but getting more sustainable when recycled or reused also triggers frustration in some interviewees. Social pressure triggers both negative feelings, as motivation triggers the positive ones. The interviewees' remarks on the affective experience influencing purchase intention are gathered in table 11.

***Table 11.*** *Affective experience influencing purchase intention*

| **Affective experience** | **Remarks that influence purchase intention** | **Citation examples** |
|---|---|---|
| Positive feeling | Pleased | “I like that [the wood fiber packaging] is compact and in a dense order, whereas the product in the plastic packaging is loose”<br>Interviewees state that wood fiber packaging evokes positive feelings |
| | Contented | “[The wood fiber packaging] looks easier to approach”<br>“Clear cut packaging like this one makes a better impression” |
| Negative feeling | Irritated | “I’m personally annoyed that [the plastic packaging] has too much [material], it could be smaller”<br>Interviewees state that the rustling of the plastic packaging is irritating<br>“It disturbs me that this is plastic and cardboard” |
| | Frustrated | “I feel like there is very contradictory information – it’s continuously said that plastic has bad things and that we should replace plastic bags in stores, -- but then all of a sudden the plastic bags are better, and when you try to investigate it it feels like there’s no solution, and then there’s plastic recycling but you shouldn’t scrub because that’s not good either, so now I have an uncertain contradictory perception”<br>“I’m so filled with how to act orthodoxly in society – when the instructions come from every direction I have felt like I can’t do anything anymore – the contradiction can be created by the exhaustion” |

The affective dimension works very intuitively, as interviewees’ positive feelings lead to a positive purchase intention, and negative feelings to a negative one. Both feelings influence sustainable purchase intention positively, as the negative feelings are mostly targeted towards plastic packaging. Natural looking packaging inflicts a positive feeling, as well as the social motivation targeted towards purchasing more sustainably. On the other hand, plastic as a material triggers an instant negative response, which creates a negative purchase intention towards plastic. In this case, the interviewee’s negative feeling leads to a positive purchase of wood fiber packaging, influencing a sustainable purchase intention. The affective experiences and packaging attributes influencing sustainable purchase intention are depicted in figure 9.

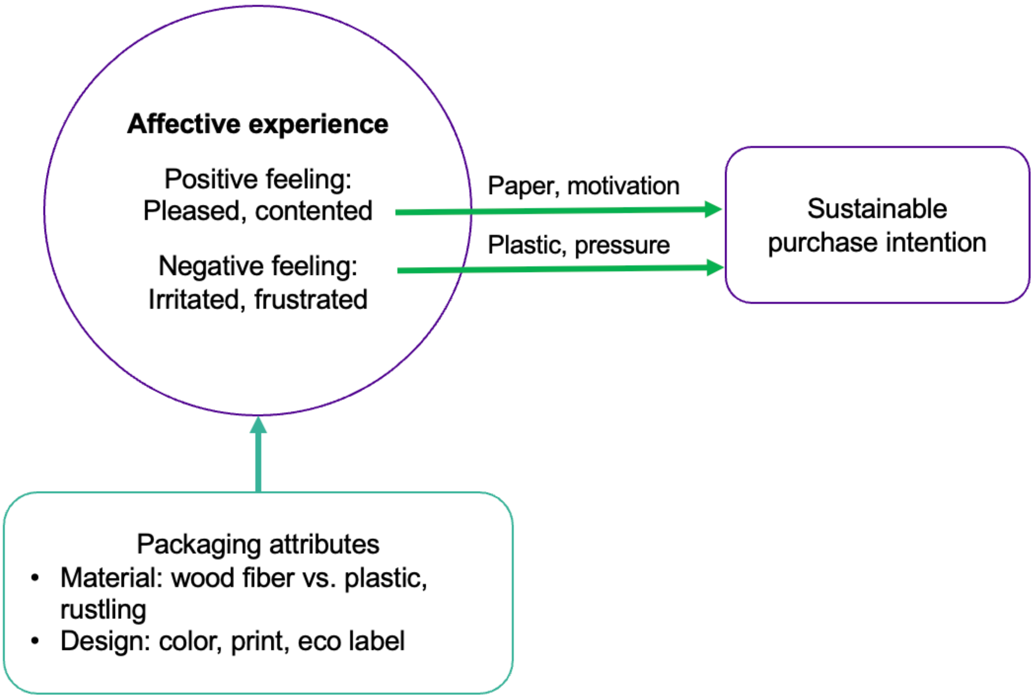


***Figure 9.*** *Affective experience*

### 5.2.5 Behavioral experience

On the behavioral aspect, most interviewees acknowledge sustainability in their daily behavior. Most include sustainability in purchasing decisions, sorting habits, diet, and transportation. Sustainability also has a growing importance in most of the interviewees' lives, with the exception of a few that have been very strict on themselves in the past and have become less strict recently. In the behavioral dimension, habit is the only clear component that influences purchase intention directly. It can be either positive or negative when considering sustainable purchase intention, as habits can lead to choosing both plastic and wood fiber packaging. The interviewees' remarks on the behavioral experience influencing purchase intention are gathered in table 12.

***Table 12.*** *Behavioral experience influencing purchase intention*

| **Behavioral experience** | **Remarks that influence purchase intention** | **Citation examples** |
|---|---|---|
| Habit | Sustainable | "[Paper packaging is more sustainable], no brainer, I immediately thought for some reason. -- also I think it's a familiarity: In my country [the product is] always in the full cardboard"<br>"I think I would choose [paper packaging] because this cardboard thing reminds me of like local" |

| | | |
|---|---|---|
| | Non-sustainable | "I don't know, maybe plastic, I somehow get the impression that [the product] has always been in this"<br>Interviewees choose plastic packaging because they are used to purchasing certain products in plastic |
| Barriers | Ambiguous | "Maybe [plastic packaging] is mixed with something else, it doesn't look like it's pure plastic"<br>"Recycled plastic, maybe both [packaging]"<br>Interviewee thinks both packaging are plastic mixed with other materials<br>Interviewees state that matte plastic packaging can be misleading as it doesn't seem like plastic |
| | Multiple materials | Interviewee states that the wood fiber packaging that includes a plastic strip requires effort to find out how the packaging can be sorted<br>Interviewee states if the consumer is unaware of the sorting instructions, the wood fiber packaging might end up in mixed waste |

The most significant barrier to sustainable purchase intention is money. Most of the interviewees are students, and, thus, emphasize the importance of financial decisions. Most interviewees, however, also see this barrier lowering in the future when entering the workforce. If the price difference of plastic versus wood fiber packaging is not significant, sustainability becomes a part of decision making. In the case of packaging, sorting behaviors affect purchasing because sorting can also become part of decision making. Significant barriers to sorting include lack of knowledge, effort, and habits. Notably, rinsing a packaging or stripping a single removable part from it is not seen as a big enough effort to act as a barrier to sorting. The effort is too significant, when the packaging cannot be cleaned with a simple rinse, or the removable parts do not come off easily. The lack of knowledge can result to choosing plastic packaging because of its familiar material. The behavioral experience influencing sustainable purchase intention is depicted in figure 10.

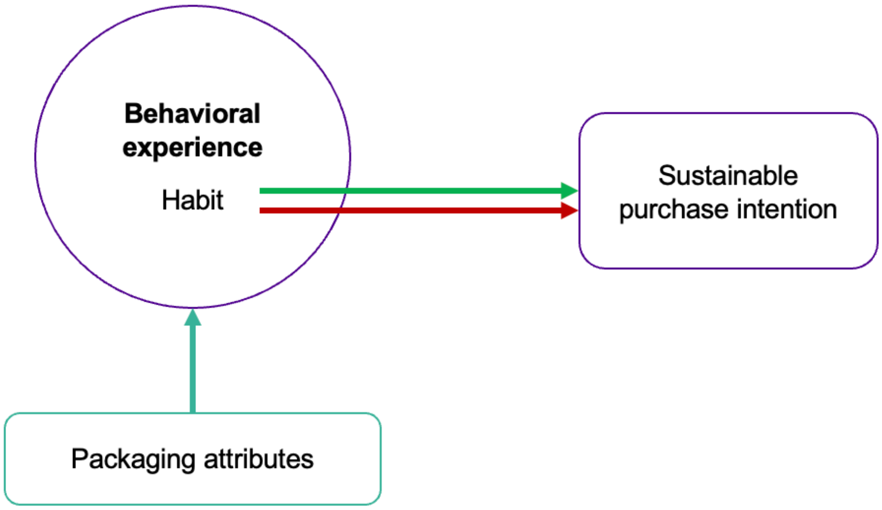


***Figure 10.*** *Behavioral experience*

### 5.2.6 Summary of experience dimension findings

All of the experience dimensions have positive influences on sustainable purchase intention, and some have direct negative ones. In the sensory experience, visuals and touch both have positive influences, with interviewees preferring papery and natural packaging. The sensory dimension triggers cognitive and affective dimensions: Determining the material is closely connected to seeing and touching the packaging. Paper also triggers positive feelings, as plastic and rustling trigger negative ones. The cognitive dimension includes determining the material and its sustainability. Both of these experiences have a positive influence on sustainable purchase intention, as interviewees choose wood fiber over plastic in both considerations. The cognitive dimension triggers the affective dimension, as paper and its sustainability arouse positive feelings.

The social dimension consists of motivation and pressure, which affect sustainable purchase intention differently. Social motivation influences sustainable purchase intention positively, but pressure can be seen as a negative influence. Social pressure can be either non-sustainable encouraging to consume more, be sustainable but affect in the opposite way in behavior, or be completely ignored. The social dimension triggers the affective dimension, with motivation inflicting positive feelings and pressure negative feelings. The affective dimension is triggered by the first three dimensions. Both positive and negative feelings influence sustainable purchase intention positively, because positive feelings are typically directed at wood fiber packaging, and negative feelings towards plastic. The behavioral dimension only includes habit, that can influence both sustainable and non-sustainable purchase intentions.

The packaging attributes that affect sustainable purchase intention can be divided into material and design attributes. The most significant material attributes are the used material, surface smoothness, thickness, ease of sorting, and rustling. The design attributes include color, print, eco label, and compactness. The eco label itself does not influence purchase intention in this study, but is an interesting finding as it works against the intended response in consumers.

## 5.3 Customer experience influencing the path from consumer contingencies to purchase intention

This chapter introduces the results considering the path from consumer contingencies to purchase intention. The results are presented according to the three contingency clusters formed by consumer contingencies and experience dimensions. The path is analyzed by dividing experiences either reinforcing; experience preserving sustainability from contingencies to purchase intention; and obstructing; experience blocking sustainability from reaching purchase intention. The contingency clusters are presented in table 13.

***Table 13.*** *Contingency clusters*

| Cluster no. | Sustainability in customer contingency | Sustainability in socio-cultural contingency | Significant experience dimensions |
|---|---|---|---|
| 1 | Significant | Significant to average | Cognitive |
| 2 | Significant to average | Average to low | Cognitive, sensory, affective |
| 3 | Average to very low | Average to very low | Cognitive, sensory, affective, behavioral |

### 5.3.1 Cluster 1: Cognitive and sustainable

The first cluster consists of interviewees that register a significant importance on sustainability in their customer contingencies. These interviewees have a broad knowledge on sustainability, as well as a sustainability-minded attitude, which result in a highly sustainable customer contingency. These interviewees socio-cultural contingencies include a high to average significance on sustainability: all of the interviewees live in a highly sustainability-oriented country, but their social circles vary from very sustainability-minded to average. Because this cluster’s contingencies are highly sustainability-oriented the initial intention is to purchase sustainable packaging. This cluster consists of five Finnish interviewees, four of which are studying at a university, and one in high school. This cluster’s remarks influencing purchase intention are gathered in table 14.

***Table 14.*** *Experience according to cluster 1*

| Path reinforcing / obstructing | Remarks that influence purchase intention | Citation examples |
|---|---|---|
| Path reinforcing experiences | Cognitive: material and sustainability | Interviewee chooses wood fiber packaging because of the papery material<br>Interviewee states wood fiber packaging looks more sustainable<br>Interviewees choose wood fiber packaging because it seems papery, which makes it more sustainable than plastic |
| Path obstructing experiences | Cognitive: functionality and sustainability | "I would choose plastic because I think it would hold moisture better."<br>Interviewee chooses plastic because it's easier to clean and sort<br>Interviewee feels like neither of the packaging are truly sustainable, and would thus choose either<br>"If I have a shortage of trash bags I could utilize the plastic bag." |

This cluster uses almost purely cognitive decision making in purchasing, with no other experience dimension significantly used. Sustainability is directly present in this cluster's decision making, whether the choice is wood fiber or plastic. The path reinforcing experiences include cognitive decision making in the forms of considering sustainability, the quality of the product, and the material. This cluster connects wood fiber packaging with a better-quality product, as well as preferring wood fiber over plastic and considering it more sustainable. To some interviewees in this cluster, a plastic look is also connected to consumerism, which results in a negative purchase intention towards plastic.

This cluster's path obstructing experiences include cognitive experiences of determining plastic packaging is more functional or has a better-quality product. The functionality in question is preservability, which is why some interviewees in this cluster prefer plastic packaging in some instances. The functionality of plastic can also be directly linked to sustainability; if the plastic packaging is easier to clean or sort, sustainable decision making can lead to choosing the plastic packaging. Another instance where sustainable decision making does not inherently lead to the sustainable choice is when an interviewee thinks neither of the packages are truly sustainable. This cluster chooses wood fiber over plastic packaging most of the time, but plastic packaging is also chosen even when considering sustainability. The path according to this cluster is depicted in figure 11.

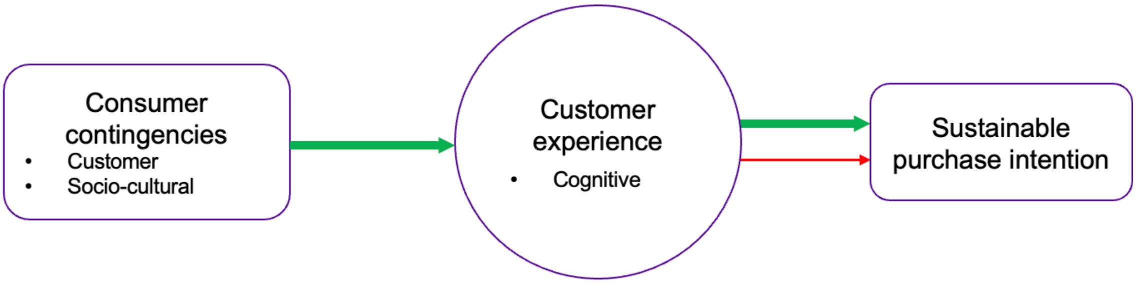


***Figure 11.*** *Cluster 1: Cognitive and sustainable*

### 5.3.2 Cluster 2: Mixed and average

The second cluster consists of interviewees with high to average sustainability in customer contingencies. Their knowledge on sustainability covers the individual and societal views on sustainability, but is not as profound as the first cluster's. This cluster also has an averagely good attitude towards sustainability, meaning they take sustainability into consideration in some parts of their life, such as purchasing or traveling, but typically prefer other attributes, such as lower prices, over sustainability. This cluster has an average to low orientation towards sustainability in their socio-cultural contingencies. Some interviewees in this cluster are from sustainability-oriented countries, but don't have sustainability-minded people in their close circles. Others have sustainability-minded people around, but are used to the ways of a country that doesn't see the importance of sustainability. The initial purchase intention of this cluster is still to purchase sustainable packaging, but as they can prefer other attributes over sustainability, the purchase intentions are more mixed than with the first cluster. This cluster includes parts of all of the interviewee groups, being the most diverse in that sense. Notably, this cluster also includes all of the Middle-European interviewees. This cluster is the largest with 10 interviewees. This cluster's remarks influencing purchase intention are gathered in table 15.

***Table 15.*** *Experience according to cluster 2*

| **Path reinforcing / obstructing** | **Remarks that influence purchase intention** | **Citation examples** |
|---|---|---|
| Path reinforcing experiences | Sensory: visuals and taste | Interviewee chooses wood fiber packaging because it looks less plasticky<br>Interviewee chooses wood fiber packaging because it's more "papery"<br>Interviewee states wood fiber packaging resembles a better taste |

| | | |
|---|---|---|
| | Cognitive: functionality, material, sustainability | Interviewee chooses wood fiber because it's easier to tear apart<br>Interviewee states wood fiber packaging is more "papery"<br>Interviewees choose wood fiber because it resembles better quality<br>Interviewees choose wood fiber because it seems more sustainable |
| | Affective: positive feeling | Interviewee chooses wood fiber because its aesthetic evokes positive feelings |
| Path obstructing experiences | Sensory: visuals and taste | Interviewee states plastic packaging looks visually pleasing<br>Interviewee chooses plastic packaging because it resembles a better taste |
| | Cognitive: functionality, sustainability | "I feel like this [plastic packaging] would have cheaper bread"<br>Interviewee chooses plastic because it fits the type of product inside<br>"-- also the packaging on [wood fiber] bothers me because it looks like it's paper but it also has plastic on it, whereas that one [plastic] I know I could put that in plastic recycling." |
| | Affective: negative feeling | "I would choose plastic just because I hate to reseal those [wood fiber packaging]" |

The experiences used by this cluster are more diverse than the first cluster; sensory, cognitive, and affective experiences have a clear significant influence on purchase intention. Sustainability can be present in the decision making directly, indirectly, or not at all, making this cluster very mixed. Path reinforcing experiences include visually pleasing packaging and better taste in the sensory aspect, with some interviewees preferring wood fiber for these reasons. The cognitive dimension can include considering sustainability directly or indirectly. Wood fiber is also seen as having a better-quality product by some interviewees in this cluster. Some interviewees in this cluster also choose wood fiber just because of the material, or a functionality of the packaging. The positive feeling of the affective dimension also reinforces the path, as the interviewees' positive feelings are directed towards wood fiber packaging.

Path obstructing experiences include the same sensory experiences as the path reinforcing ones: visuals and taste. Thus, in this cluster, the sensory experience can result in a sustainable or non-sustainable purchase intention. On the cognitive side, functionality is the most significant experience to destruct the path. Negative feelings towards wood fiber packaging can also obstruct the path on the affective side, although being less common than positive feelings towards wood fiber packaging. This cluster still chooses wood fiber packaging more than the plastic alternative, but the difference is less significant than with the previous cluster. The path according to this cluster is depicted in figure 12.

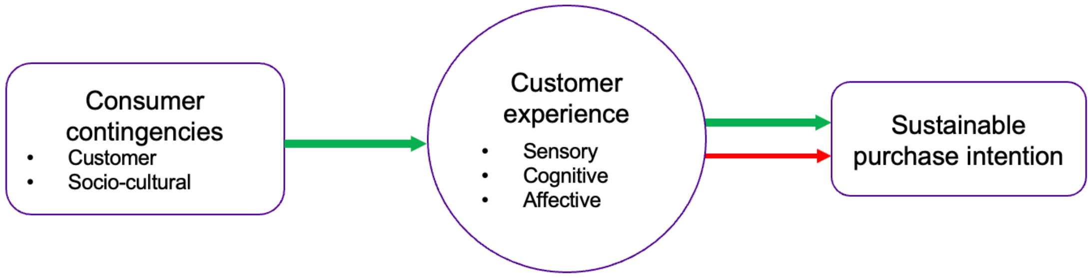


***Figure 12.*** *Cluster 2: Mixed and average*

### 5.3.3 Cluster 3: Diverse and indifferent

The last cluster consists of interviewees that have an average to low amount of sustainability considered in both their customer and socio-cultural contingencies. This cluster typically has less knowledge on sustainability, meaning their understanding of sustainability consists of individual's actions but not a societal force. This cluster can have the averagely sustainable attitude presented by the second cluster, or they can be nonchalant towards the idea of acting sustainably. On the socio-cultural side, this cluster's social circles are not as sustainable as the other clusters', and their home country can vary from sustainable to non-sustainable. For the interviewees in this cluster, either the customer or socio-cultural contingency has very little orientation towards sustainability. The initial purchase intention of this cluster is still typically sustainable packaging, but the packaging alternatives must be very similar in their attributes for the sustainable option to be chosen. This cluster consists of four interviewees, including global interviewees, and one Finnish interviewee that is not in university. This cluster's remarks influencing purchase intention are gathered in table 16.

***Table 16.*** *Experience according to cluster 3*

| Path reinforcing / obstructing | Remarks that influence purchase intention | Citation examples |
|---|---|---|
| Path reinforcing experiences | Sensory: visuals | "It looks less plasticky."<br>Interviewee agrees that wood fiber packaging looks more aesthetically pleasing |

| | | |
|---|---|---|
| | Cognitive: functionality, material, sustainability | "-- in my opinion it's better to keep baked products in cardboard --"<br>Interviewee chooses wood fiber because of it's papery material<br>Interviewee thinks wood fiber is more sustainable than plastic |
| | Affective: positive and feelings | Interviewee thinks wood fiber packaging design evokes positive nostalgic feelings<br>Interviewee feels irritated that plastic packaging has excess material |
| | Behavioral: habit | Interviewee chooses wood fiber because they are used to purchasing similar packaging in their home country |
| Path obstructing experiences | Sensory: visuals | "I usually just choose what looks aesthetically pleasing to me, it would be this [plastic packaging]"<br>"I also don't have that much attention span to check every product, the first thing I see I grab it." |
| | Cognitive: functionality | Interviewee chooses plastic because it's more durable when getting wet<br>"—for the purpose of taking the product to go, I feel like plastic is the better option to paper –" |
| | Behavioral: habit | "-- I just have an impression that bread has always been in this kind of packaging –"<br>Interviewee chooses plastic because they have purchased similar products in plastic packaging before |

This cluster uses the most diverse experience, with sensory, cognitive, affective, and behavioral dimensions influencing purchase intention. This cluster includes sustainability in decision making directly, indirectly, and partly not at all. The sensory path reinforcing experiences include visual appeal, as this cluster chooses wood fiber packaging because of its looks. The cognitive dimension consists of indirect sustainability, functionality, better quality, and the material not being plastic. Compared to the other clusters, this cluster does not choose wood fiber simply because of its material, but still steers away from plastic. The behavioral path reinforcing experience consists of habit, which is not registered by any other cluster.

Path obstructing experience dimensions are similar with the reinforcing ones, with sensory and behavioral experiences consisting of visual appeal and habit. The cognitive experience that obstructs the sustainable path consists of functionality in the plastic packaging. Notably, none of the interviewees in this cluster registered the affective dimension to have an influence towards purchasing plastic packaging. The purchase intention of this cluster is divided fairly evenly between plastic and wood fiber packaging. The path according to this cluster is depicted in figure 13.

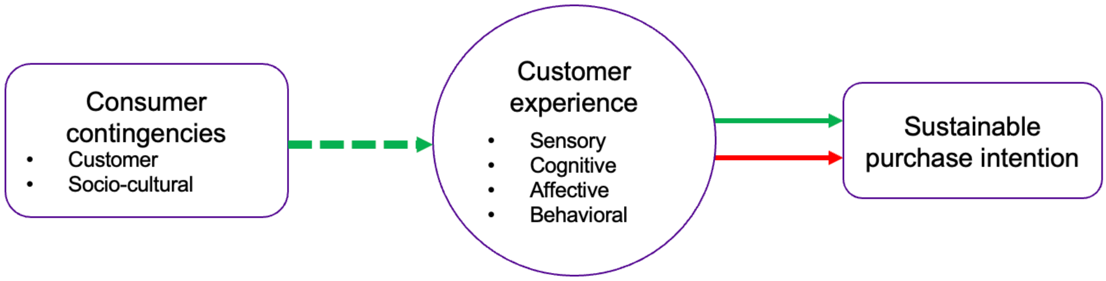


***Figure 13.*** *Cluster 3: Diverse and indifferent*

### 5.3.4 Summary of consumer contingency findings

In the big picture, more sustainability-oriented interviewees, that have higher significance on sustainability in their customer and socio-cultural contingencies, choose more sustainable alternatives. Thus, the stronger the contingencies are towards sustainability, the more likely the path form consumer contingencies to experience to sustainable purchase intention remains sustainability-oriented. More sustainability-oriented interviewees also use almost purely cognitive experience, with sustainability directly considered in decision making. Thus, the experience reinforces the sustainable path when cognitive dimension is used.

Less sustainability-oriented interviewees have more variation in their experience dimensions that influence sustainable purchase intention. The least sustainable cluster uses the most experience dimensions, including behavioral habit. In these cases, the path is more likely to be obstructed by the experience. This cluster also tends to value other packaging attributes more than sustainability, which means sustainable packaging must have similar attributes to the plastic equivalent for it to be chosen. The actual individual choices of the interviewees, however, are not strictly dependent on how sustainable the contingencies are: the most sustainability-oriented interviewees still choose plastic packaging in certain instances. The experience is likely different for the clusters, as the interviewees in the first cluster consider sustainability cognitively in most of their purchasing decisions, and the last cluster more likely goes for visual appeal or habit.

# 6. SUMMARIZING AND DISCUSSING KEY FINDINGS

The key findings are presented by combining the most significant findings of all three research questions. These findings, thus, represent the key findings on the experience dimensions as well as the contingency clusters. Consumers experience sustainable packaging through packaging attributes and consumer variables. The packaging attributes that are perceived as sustainable include brown and green colors, natural prints, papery feel, and unambiguous material. Ambiguous materials create confusion among consumers on what the material is, how sustainable it is, and how it's supposed to be sorted. Familiar and distinct materials are perceived more sustainable. The consumer variables that relate to experiencing sustainability include purchasing and sorting habits, as well as responses to social factors. Most prominently, social motivation can change the way consumers perceive sustainability in packaging.

Considering the experience dimensions, the cognitive dimension is the most prominent, as it's the most common to influence sustainable purchase intention. Cognitive thinking includes determining the material of the packaging and it's sustainability. The sensory dimension also influences purchase intention, with visuals and touch as the most prominent senses. The affective dimension influences purchase intention every time it's mentioned in the interviews. The least prominent dimension is the behavioral dimension that only includes habits. The social dimension shows no paths from consumer contingencies to purchase intention in the summarizing figure, because the dimension doesn't directly influence the purchase intention in the interview setting. Instead, the interviewees consider the impact of the social dimension to be realized over a long period of time. The overlapping and intertwining nature of the experience dimensions reinforces the findings of Ta et al. (2022), stating the dimensions are interconnected and constantly in interaction.

The initial intention for all clusters is to purchase sustainably, as no interviewee shows a desire to inherently be anti-sustainable. The intention to purchase sustainably can, thus, be either reinforced or obstructed by customer experience. For the first and most sustainability-oriented cluster, the experience reinforces sustainable values. For the second cluster, sustainability has a less significant impact, as purchase intentions vary between sustainable and non-sustainable. For the last cluster, experience equally reinforces and obstructs the path from contingencies to sustainable purchase intention. The findings reinforce Becker and Jaakkola's (2020) view on contingencies, as both come to the conclusion that contingencies influence customer experience. The findings contradict the view of some researchers (e.g., Pine & Gilmore 1998; Schmitt 1999; Gentile et al. 2007; Ding & Tseng 2015; see Lemon & Verhoef 2016) that assume a good experience is universal. According to the findings, experiences are highly dependent on consumers, and more specifically, their contingencies. The key findings are presented in figure 14.

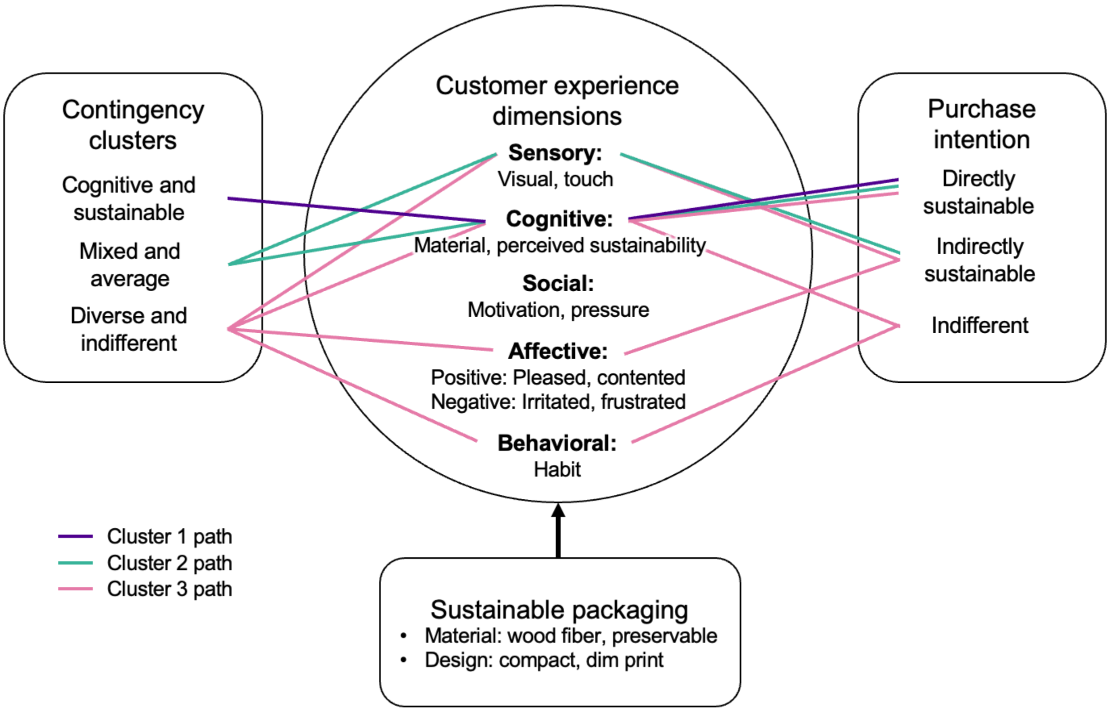


***Figure 14.*** *Key findings on experience dimensions and contingency clusters*

For the first cluster, depicted by the purple line, the experience is unanimously cognitive. This cluster typically considers sustainability cognitively in their purchase experiences, and in this study, also show a direct sustainable purchase intention. Sustainability is, thus, considered directly in purchase decisions, which created a strong sustainable purchase intention. The cognitive experience reinforces this cluster's intention to purchase sustainably. This finding is in line with the research of Prakash and Pathak (2017) and Korhonen (2012), that state environmentally aware people value sustainable packaging more than people, that are less environmentally aware. This cluster typically considers packaging material more than design attributes, as they prefer papery materials over plastic ones. Compactness and dim prints are, however, also preferred by this cluster, as they typically relate to sustainable packaging alternatives.

With the second cluster, depicted by the green line, the cognitive and sensory experiences are the most prominent. Cognitive thinking leads to a mostly directly sustainable purchase intention with this cluster, too. The sensory dimension leads to indirectly sustainable purchase intention, as this cluster tends to choose the sustainable alternative without considering sustainability directly. Instead, this cluster shows an intuition to sustainable purchasing, as they end up choosing the sustainable alternative based on packaging attributes alone. For example, interviewees in this cluster tend to choose wood fiber packaging because of its material, color, or visual aesthetic, without considering sustainability directly. This cluster also values preservability more than the first cluster.

The third cluster, depicted by the pink line, has the most variety in their dominant experience dimensions. Although this cluster still shows mostly cognitive experiences, the other experience dimensions are also prominent with the choices. The sensory and affective experiences lead to indirectly sustainable purchase intentions with this cluster, as the more sustainable alternatives are chosen without considering sustainability directly. Interestingly, the choices derived from the cognitive dimension are split, when it comes to this cluster. This shows how the third cluster differs in their cognitive thinking: they either focus directly on sustainability, or only packaging functionalities, splitting the path from the cognitive dimension. The behavioral dimension leads to an indifferent purchase intention, as habits can lead to choosing either of the packaging alternatives without connecting to sustainability at all.

The packaging attributes presented in figure 14 reoccur with every cluster. Interviewees prefer wood fiber as a material, either for its sustainable presentation or because of a personal preference. This finding reinforces the findings of multiple researchers (e.g., Korhonen 2012; Nemat et al. 2019; Ketelsen et al. 2020; Otto et al. 2021), that state material is a significant attribute in sustainable packaging for consumers. Preservability is the other packaging material attribute, that all of the clusters value. This attribute can be found in both wood fiber and plastic packaging, typically for different intentions of use. For example, some interviewees think their bread is preserved better in a paper bag, and some think their snack biscuits that will evidently be eaten on the go require plastic packaging. Considering packaging design, the valued attributes include compactness and dim prints. Compact packaging is preferred because it doesn’t make noise or waste excess material. A dimmer print can be linked to sustainability, as dimmer prints are found in packaging that are made of material that is hard to print on, such as paper. Plastic, on the other hand, typically has a brighter print on it regardless of the used colors. Contradictory to the findings of Nemat et al. (2019) and Ketelsen et al. (2020), the interviewees do not remark logos and labels, but rather focus on the overall visual aesthetic of the packaging.

Interestingly, the first cluster does not indicate visual aesthetic to be important in packaging. Intuitively, visuals are typically a central point of marketing, and are also considered crucial in the packaging industry (e.g., Korhonen 2012; D'Astous & Labrecque 2021). Although the last two clusters show visuals to have an influence on purchase intention, the first cluster doesn't show any significant remarks for the visual aesthetic itself, and only consider packaging to look either sustainable or non-sustainable. The assumption that consumers value an attractive design (Korhonen 2012; D'Astous & Labrecque 2021), thus, is only fulfilled in the case of less sustainability-oriented consumers. In light of these findings, it can be deduced that less sustainability-oriented consumers value the qualities of the non-sustainable packaging alternatives, as stated by Ketelsen et al. (2020), and highly sustainability-oriented consumers rather look for sustainable values in packaging. Every cluster also experiences confusion when encountering packaging that has both wood fiber and plastic materials. Although it doesn't necessarily influence purchase intention directly, multiple interviewees think the plastic strip makes the wood fiber packaging less sustainable, more ambiguous, and more difficult to sort.

# 7. CONCLUSIONS

The conclusions of this study are presented below. First, the academic contributions are presented according to existing literature. Next, the managerial contributions are introduced. Lastly, the limitations of this study and implications for future research are presented.

## 7.1 Academic contribution

The academic contributions of this study are categorized according to existing literature depicted in figure 3. Firstly, this study adds to the research on customer experience. The fundamentals of customer experience include the dimensional aspect first developed by Schmitt (1999), and the temporal aspect introduced by Lemon and Verhoef (2016). In addition to these, Becker and Jaakkola (2020) merge theoretical premises on customer experience creating a comprehensive view on the subject. This study adds to the fundamentals of customer experience by connecting it to customer contingencies, and purchase intention. According to the findings, customer experience mediates customer contingencies, sustainable packaging, and sustainable purchase intention. Customer experience, thus, has a significant role in determining purchase intention. In addition, this study links customer experience to consumer view and sustainability, validating the findings of Ta et al. (2022) that highlight the importance of customer experience in sustainable purchasing. As customer experience is studied mostly from a managerial view (e.g. Verhoef et al. 2009; Brakus et al. 2009), this study bridges the literature gap that links customer experience to the consumer view.

Secondly, this study adds to research considering customer value and customer experience. The relationship of customer experience and value is reinforced in this study by viewing customer value as a product of customer experience. Customer value has previously been presumed to be created by customer experience (e.g. Chen & Lin 2015; Urdea & Constantin 2021), but this relationship is typically not stated in research, which creates confusion between the terms. This research reinforces the view that customer experience creates value. Customer value has also been studied in the context of sustainable purchase intention (e.g. Choi & Johnson 2019; Ahmed et al. 2022). This study adds the viewpoint of customer experience to this consideration, broadening the view on sustainable purchase intention. Consumer attitudes (e.g. Choi & Johnson 2019; Ahmed et al. 2022), and environmental knowledge (e.g. Choi & Johnson 2019; Rausch & Kopplin

2021) have previously been studied to significantly influence sustainable purchase intention. This study validates these findings, as knowledge and consumer attitudes towards sustainability have a significant influence on purchasing sustainable packaging.

Thirdly, this study adds to the research on sustainable packaging. According to Nemat et al. (2019), there is a lack of research on consumer view of sustainable packaging, which creates a gap between perceived and actual sustainability in packaging. This study bridges this gap by adding customer experience to sustainable packaging research. According to a variety of research (Korhonen 2012; Nemat et al. 2019; Ketelsen et al. 2020; Otto et al. 2021) material is the primary attribute that consumers recognize in sustainable packaging. This is reinforced by the findings of this study, as all consumers paid attention to packaging material in this research. Considering material attributes of sustainable packaging, there are multiple similarities between the findings and existing literature. Recyclability is one of the most significant attributes of sustainable packaging (Korhonen 2012; Ketelsen et al. 2020; Otto et al. 2021), and also reinforced by the findings of this study. Cardboard is also found to be the most sustainable according to the consumer perceptions in this study, which is in line with the findings of Nemat et al. (2019), Ketelsen et al. (2020), and Otto et al. (2021).

The perceived sustainability of packaging is crucial considering the purchase intention of sustainable packaging, according to the findings. This finding is in line with Macht et al. (2023), highlighting the importance of perceived eco-friendliness for sustainable packaging. Considering packaging design, the findings also reinforce the findings of Otto et al. (2021), that state consumers value natural looking material and design in sustainable packaging. In addition, the findings reinforce the findings of Korhonen (2012), which highlight the importance of the packaging emptying easily and taking up the minimum amount of material. According to Nemat et al. (2019), consumers rely on eco labels on packaging rather than textual information. In this study, the eco label placed on plastic packaging caused distrust and suspicion among consumers, and did not influence purchase intention positively. The findings, thus, contradict the statement of Nemat et al. (2019), and rather suggest that consumers are aware of greenwashing and need to trust labels for them to have a positive influence.

Contrary to the sustainable values, packaging qualities must also match the qualities of the non-sustainable equivalent with consumers that have less significance on sustainability in contingencies. This reinforces the view of Ketelsen et al. (2020), that state the qualities of non-sustainable packaging must be present in the sustainable ones. This finding also reinforces the view of Korhonen (2012), and Prakash and Pathak (2017):

consumers that have high significance on sustainability in their contingencies value sustainability more in packaging. In addition, these findings are in line with the view of Sairanen et al. (2024), stating product functionality comes before sustainability with B2B customers.

## 7.2 Managerial contribution

The aim of the managerial contributions is to support and bring end customer experience into product development of wood fiber based flexible packaging. Although there are fundamental differences between the consumer clusters, all clusters prefer a papery look and feel in packaging, and try to steer away from plastic. Compactness and dim prints are also preferred by most, as they tend to add to the seeming sustainability of the packaging. In contrast, ambiguity is not ideal for packaging, as it confuses consumers on the material and sustainability aspects. The more specific findings are presented below.

Firstly, this research sheds light to how different clusters of consumers experience packaging. According to the findings, the more sustainability-oriented the consumer is, the more they use the cognitive experience. Sustainability-oriented consumers are also more likely to purchase wood fiber based instead of plastic packaging. Less sustainability-oriented consumers, on the other hand, experience more diversely, paying more attention to, for example, visual aesthetics. Thus, marketing and communication with different consumer clusters can be enhanced and more targeted according to the findings.

Secondly, the sustainable path from consumer contingencies to purchase intention can be reinforced with packaging attributes. All clusters show a positive purchase intention towards wood fiber packaging, and typically tend to steer away from plastic. Specifically, most interviewees prefer papery looking and feeling packaging. Preservability is also valued by every cluster. Notably, when considering preservability, the interviewees trust their own instinct on what seems preservable. As plastic packaging is replaced by other materials, the preservability of the new packaging still typically matches the preservability of the plastic alternative. Consumers, however, can experience plastic to be the most preservable option according to their judgement. Thus, perceived preservability of the packaging is a crucial attribute when it comes to sustainable purchase intention.

Considering packaging design, the attributes that all cluster value are compactness and dim prints. Compact packaging has two main qualities that consumers value; it doesn’t make noise or waste excess material. According to the findings, consumers value dim prints because they are related to sustainability. From the viewpoint of product development, dimmer prints go hand in hand with wood fiber and paper materials, as brighter prints are more difficult to achieve with these materials. Thus, developing technologies to achieve brighter prints on paper should not be the focal point of developing sustainable packaging. According to the findings, the last two clusters also value a pleasing visual aesthetic. Specifically, brown and green colors, as well as wooden and natural-looking prints are considered to have a positive influence on purchase intention.

The more ambiguous the packaging material is, the less encouraged consumers feel to purchase it. For example, including a plastic strip in paper or wood fiber packaging can confuse consumers, as the materials are typically sorted separately. Even with clear sorting instructions, the findings show that including multiple materials in one packaging creates distrust on sorting among consumers. Consumers intuitively question this kind of packaging, and label it less sustainable compared to a packaging made fully of wood fiber or paper. Thus, the contradiction of two materials can lead to a negative purchase intention, even if the consumer is basing the decision on sustainability and what they are able to sort. According to the findings, eco labels, contradictory to existing information, do not influence purchase intention positively. When appearing on a plastic packaging, the eco label arouses distrust and suspicion among consumers. Some interviewees also state they would trust the label if it included information on why the packaging is the more ecological alternative.

## 7.3 Limitations

Like all research, this study too has its limitations. Firstly, there are limitations and bias in research design. There are only 19 interviewees in this study. Because the number of interviewees is relatively small, the results are not as reliable as they would be with a larger sample. The interviewee groups are also not completely heterogeneous, as some interviewees know each other, which can create bias in their answers. The only interviewees that have not attended university are Finnish, which creates homogeneity in this group. The affect of education is, thus, less reliable in this study than the other researched attributes. The socio-cultural contingencies that stem from different countries are represented by single people, which can direct the findings according to single interviewees. Interviewee bias also emerges in group interviews, as the social setting has a significant role. In these scenarios, interviewees can overpower, withhold, or exaggerate certain opinions, directing the results according to what they say. For example, the significance of sustainability can be exaggerated by some interviewees, either on purpose or by accident. To ensure the heterogeneity of the interviewees, there is variety in, for example, their gender and studies. However, the personalities of the interviewees might be similar, which can create bias in the results.

Secondly, there are limitations and bias in the data analysis. As the data analysis is qualitative, it depends significantly on the researcher's own judgement. For example, the consumer contingencies are constructed with the judgement of the researcher. Thus, researcher bias has a significant role in this study. The means to eliminate this bias are presented in chapter 3.2 Data analysis. For example, clustering the consumer contingency groups reduces researcher bias, as the clusters take experiences into consideration. The researcher bias also presents itself when analyzing interview data. Single words have a big difference in this study, as they can determine the experience dimension. For example, the words "looks", and "feels" can be used as synonyms in speech, but can represent sensory and affective dimensions separately. Thus, the reliability of the research depends on how well the researcher identifies the true meaning of the words.

## 7.4 Implications for future research

The implications for future research arise from the gaps in existing literature, as well as the findings and limitations of this research. Firstly, the relationship of customer experience and value is not stated clearly and explicitly in literature. Thus, the relationship of the two is ambiguous, and the terms are still used in synonyms in research. To create high quality research of customer experience, this relationship requires a comprehensive definition. In addition, sustainable packaging lacks a clear definition in literature, and this should, thus, be studied further.

Secondly, the a priori framework needs more testing in different study environments to confirm its validity and reliability. The situational consumer contingencies are not present in the findings of this study, as the study doesn't include the store environment. The situational contingencies and their influence on sustainable purchase intention should, thus, be studied to conclude the contingencies. The socio-cultural contingencies also lack the perspective of age and gender, as studying these attributes would need a significantly larger sample size. The effect of country and education can also be researched further, as the sample size of this study is relatively small.

Thirdly, the studied experience dimensions that did not reach saturation in this research are affective, social, and behavioral. The social dimension is also not present in the contingency cluster findings, as the influence of this dimension did not affect purchase intention directly in the interview setting. These three experience dimensions would benefit from further research in the case of sustainable packaging. Considering packaging attributes, the eco label not influencing purchase intention is contradictory to previous research. Thus, this subject could be studied more by comparing packaging that has an eco label and packaging that has an eco label and an explicit explanation on why the packaging is ecological. The subject can also be studied by examining consumer responses to wood fiber packaging that has an eco label, as in this study, the eco label was placed on a plastic packaging.

Fourthly, the idea and validity of the contingency clusters needs further research. The categorization of customer, socio-cultural, and situational contingences is derived from literature, and needs confirmation in an empirical setting. The relationship of the contingencies and their difference influencing sustainable purchase intention should be studied more, as these themes are not included in this study. In addition, the clustering process and its results require validation from further research.

Fifthly, the found paths from consumer contingencies through experience to sustainable purchase intention should be studied further. Specifically, the paths that do not directly come to a positive or negative sustainable purchase intention are the most interesting. These paths include the third cluster experiencing cognitively and behaviorally, and ending up in highly split decisions between sustainable and non-sustainable packaging. These paths can be further studied by simply increasing sample size, or diving deeper into this kind of consumers' thought and behavioral processes. Lastly, this research is conducted with limited sampling. The researched themes would, thus, benefit from quantitative research to support the findings.

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# APPENDIX A: INTERVIEW GUIDE

## Interview questions

**Phase one: personal backgrounds and contingencies**

*Basic information*

a) What is your name, age, gender, and education?
b) What is your current place of residence? Is it a large city or a smaller town? Did you grow up in a similar place?

*Sustainability*

a) Can you briefly describe environmental sustainability (from now on referred to as sustainability)?
b) Where and how did you learn about sustainability?
c) Which sustainability values are important to you? Which are less significant?
d) How well is sustainability carried out in your home country in your opinion?
e) What is your own attitude on sustainability? Can one impact environment with their own actions?
f) Do you carry out your attitude in reality and action? How?
g) Has your attitude changed recently? How and why?
h) Do you purchase sustainable products over unsustainable ones? What do you base the decision on?
i) Do you typically pay attention to packaging?
j) Do you recycle, (clean out packaging), or take note how to dispose of the packaging?
k) Do you find barriers to carrying out these tasks (i.e. time, effort, infrastructure)?

**Explain what sustainability means in packaging**

**Phase two: experience, value, and purchase intention**
**Introduce packages**

*Sensory and cognitive*

a) What material do you think these packages are made of?
b) Which one/ones seem sustainable? Why (touch, visuals, other senses, environmental labels)?
c) Do you know what a flexible packaging is?

**Introduce flexible packaging**

*Affective and cognitive*

a) What kind of impressions do the packages make? Are there clear differences?
b) How do you feel about plastic and its sustainability?
c) Has your attitude on sustainable products or packaging changed recently? How and why?

*Behavioral*

a) Which one of each pair of products would you choose in a store? Why?
b) Is your attention drawn to the packaging or the product?

c) Would you sort the packaging?
d) Has there been change in your behavior in purchasing sustainable products/packaging? Why?

*Social*

a) Did other people's opinions change your ideas or attitudes during this interview? When?
b) Has others' opinions changed your attitude on sustainability? How?
c) Has it changed your purchasing behavior? How?
d) Do you feel social pressure towards sustainaiblity? What about sustainable purchasing?

*Closing*

a) Is there anything you would like to add or discuss?
b) Would you like to give feedback to the interviewer?