



**Vaasan yliopisto**  
UNIVERSITY OF VAASA

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**Factors closing the attitude-behavior gap for  
sustainable consumption in the fashion industry**

A study of Finnish consumers

School of Marketing and  
Communication  
Master's thesis International  
Business

Vaasa 2024

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**Title of the Thesis:** Factors closing the attitude-behavior gap for sustainable consumption in the fashion industry : A study of Finnish consumers  
**Degree:** Master of Science in Economics and Business Administration  
**Programme:** Master's Programme in International business  
**Supervisor:** Tahir Ali  
**Year:** 2024 **Page count:** 89

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**ABSTRACT:**

Ilmastonmuutos ja ympäristöongelmat aiheuttavat kasvavaa huolta maailman luonnonvarojen riittävydestä. Tämänhetkinen kulutustaso ylittää jo nykyisellään maapallon kapasiteetin, mutta kulukseen määrä ja sen aiheuttamat negatiiviset ympäristölliset ja sosiaaliset haitat jatkavat kasvuaan. Muotiteollisuus on poikkeuksellisen suuri ympäristö- ja sosiaalisten ongelmien aiheuttaja globaalilla kentällä. Tämä johtuu suurelta osin uuden liiketoimintamallin, pikamuodin suosiesta alalla. Pikamuoti-liiketoimintamallin seurauksena muodin kulutus on ennätyksellinen nopeaa, kun halpoja ja massatuotettuja vaatteita ostetaan ja niistä hankkiudutaan eron hälyttävää tahiä. Tämä on luonut tarpeen kestävämmille ja vastuullisille käytännöille.

Huolimatta siitä, että huoli kestävydestä on saanut kuluttajat suhtautumaan vastuullisuuden käsitteeseen myönteisemmin, kuluttajat eivät silti kuluta muotia kestävällä tavalla. Tämä asenteiden ja käyttäytymisen välinen kuilu on tunnistettu laajalti aikaisemmissa kestävä muodin tutkimuksissa. Tutkijat ovat ehdottaneet, että tunnistamalla kuilun taustalla olevia syitä, jotka mahdollisesti selittävät sen, mikseivät kuluttajat tee vastuullisia kulutus päätöksiä, kuluttajia voidaan kannustaa kestävämpään ostokäyttäytymiseen. Vaikka aiemmissa tutkimuksissa aiheeseen on perehdytty laajalti, ne tarjoavat silti vain hyvin rajallisen käsityksen tekijöistä, jotka auttavat kaventamaan tätä asenteiden ja käyttäytymisen välistä kuilua ja edistävät kestävien muotituotteiden kulutusta. Tästä syystä tämän tutkimuksen tavoitteena on tutkia tekijöitä, jotka edistävät kuluttajien asenteiden ja käyttäytymisen välisen kuilun kuromista umpeen edistämällä kestävä muodin kulutusta. Kirjallisuuskatsauksen perusteella on todettu viisi merkittävintä esitettyä, jotka saattavat aiheuttaa kuilun asenteiden ja käytöksen välille ja estää kuluttajia tekemästä vastuullisia valintoja. Nämä tekijät ovat tietoisuuden puute, tietämättömyys kestävydestä ja väärinkäsitykset, korkeat hinnat, heikko saatavuus ja kielteinen kuva sekä luottamuksen puute ja skeptisyys. Näiden tulosten perusteella tälle tutkimukselle on kehitetty kuusi hypoteesia.

Kehitettyjä hypoteeseja on testattu keräämällä kvantitatiivista tietoa 156 suomalaiselta kuluttajalta. Moninkertaiseen regressioanalyysiin perustuva empiirinen analyysi on tukenut viittä kudesta hypoteesista. Tulosten pohjalta voidaan todeta, että viisi tekijää, jotka positiivisesti edistävät vastuullisen muodin ostamista ja kaventavat asenteiden ja käyttäytymisen välistä kuilua ovat seuraavat: tietoisuus kulutuksen kielteisistä vaikutuksista, kestävä muodin tuntemus, kestävä muodin koettu arvo, kestävien vaatteiden saatavuus ja koettu kuluttajatehokkuus. Tulokset osoittavat, että muotialan yrityksen voivat motivoida kuluttajia kuluttamaan kestävä muotia sisällyttämällä näitä tekijöitä viestintä- ja markkinointitoimiinsa. Kyseessä on oltava yhteinen ponnistus, jossa yritykset tarjoavat kestävämpiä vaihtoehtoja muodille ja kuluttajat kuluttavat niitä mielellään.

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**KEYWORDS:** sustainability, sustainability, sustainable consumption, sustainable fashion, slow fashion, attitude-behavior gap

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**ABSTRACT:**

The issue of climate change and environmental degradation has led to a growing concern for the world's resources. Current consumption levels exceed the earth's capacity, yet the rate of consumption continues to increase, accompanied by a corresponding rise in the negative environmental and social consequences. The fashion industry is a significant contributor to environmental and social problems on a global scale. This is largely due to the emergence of a new business model, fast fashion, which refers to mass-produced and low-cost clothing. Consequently, the rate of fashion consumption is at an all-time high, with clothes being purchased and discarded at an alarming rate. This has created a need for more sustainable practices.

Despite the increased concern about sustainability that has led consumers to adopt more positive attitudes towards it, consumers do not consume fashion sustainably. This attitude-behavior gap in the field of sustainable fashion consumption has been widely acknowledged. Researchers have proposed that by identifying the underlying causes of the gap, it may be possible to encourage more sustainable purchasing behaviors. Although prior research delves into this research topic, it provides a very limited understanding of factors closing the attitude-behavior gap in purchasing sustainable fashion products. Therefore, the objective of this research is to investigate the factors that contribute to closing the consumers' attitude-behavior gap for sustainable consumption in the fashion industry. Based on a literature review, the following factors have been identified as the most significant barriers to sustainable consumption: a lack of awareness, a lack of knowledge about sustainability and misconceptions, high prices, low availability and a negative image of sustainable fashion, and a lack of trust and skepticism. In order to overcome these barriers, six factors have been identified that could potentially facilitate sustainable consumption. Based on these findings, six hypotheses have been formulated.

The developed hypotheses have been tested by collecting quantitative data from 156 Finnish customers. Empirical data analysis based on multiple regression analysis has supported five out of six hypotheses. The findings suggest that the five factors contributing to closing the attitude-behavior gap in buying sustainable fashion products are: awareness of the negative effects of consumption, sustainable fashion knowledge, perceived value of sustainable clothing, availability of sustainable clothing, and perceived customer effectiveness. The findings indicate that fashion companies can motivate consumers to consume sustainable fashion by including these factors in their communication and marketing efforts. It should be a shared effort where companies provide more sustainable fashion options and consumers willingly consume them.

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**KEYWORDS:** sustainability, sustainability, sustainable consumption, sustainable fashion, slow fashion, attitude-behavior gap

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# 1 Introduction

This chapter presents the rationale for the thesis. It begins with an introduction to the subject's background and the research gap within the literature. The research question and objectives for the study are then introduced, followed by the delimitations of the study. Definitions of key terms and an introduction to previous studies used in this thesis are also provided. Finally, the structure of the thesis is presented.

## 1.1 Background of the study

Global climate change and environmental issues are more significant than before and people are increasingly more concerned about the environment (Sharma, 2021, p. 1217). As a result, the number of environmentally conscious consumers is also increasing (Sagapova et al., 2022, p. 1) along with the global demand for sustainable products, services, and companies, which has increased significantly in recent decades (Busalim et al., 2022, p. 1823). Consequently, research on sustainable consumption has become popular in the last few years (ElHaffar et al., 2020, p. 1).

Sustainability issues are also evident in the fashion industry, and the idea of sustainable fashion has been around since the 1960s (Mandarić et al., 2022, p. 4). The industry has been criticized for its negative environmental and social effects (Niinimäki et al., 2020, p. 189) and previous research shows that the fashion industry is currently one of the largest contributors to social and environmental problems in the world (McNeill & Venter, 2019, p. 368). When the supply chain of the fashion industry is included, it is the third most polluting industry after the construction and food industries (Öndoğan et al., 2022, p. 395). This is due to the high energy and water consumption, the use of chemicals, and the waste and wastewater produced (Niinimäki et al., 2020, p. 191; Öndoğan et al., 2022, p. 395).

Furthermore, the negative environmental impacts of the fashion industry have recently increased due to the growing consumption of clothing and the popularity of fast fashion brands, which are brands that sell low-cost and trend-led products that consumers buy and discard frequently (Mandarić et al., 2022, p. 14; Niinimäki et al., 2020, p. 189; Sagapova et al., 2022, p. 2). Fast fashion brands further increase the negative environmental and social impacts of the fashion industry, such as water consumption and worker exploitation (Mandarić et al., 2022, p. 14; Sagapova et al., 2022, p. 4).

Along with the growing popularity of fast fashion brands, criticism of the environmental and social issues of the fashion industry has also increased in recent years (Niinimäki et al., 2020, p. 189). The demand for more sustainable businesses has also affected the fashion industry and more consumers are aware of its sustainability issues (McNeill & Venter, 2019, p. 368; Öndoğan et al., 2022, p. 393). According to previous research, many consumers have positive attitudes towards sustainable fashion brands (Mandarić et al., 2022, p. 4).

However, according to Mandarić et al. (2022, p. 14), the consumption of sustainable fashion brands does not reflect the positive attitudes of consumers. The market share of sustainable fashion brands is still small, despite the positive attitudes of customers. This difference between consumer's attitudes and behavior is widely recognized in the literature and referred to as the attitude-behavior gap (e.g., ElHaffar et al., 2020; Mandarić et al., 2022; Sharma, 2021).

Although the attitude-behavior gap has been studied extensively in the past, further research is needed. According to ElHaffar et al. (2020, pp. 4-9), the gap has mainly been studied using green food, green energy, or green everyday products such as cleaning products. Therefore, there is a need for further research from the perspective of sustainable clothing. More research is needed to understand why consumers have positive attitudes towards sustainability yet continue to buy fast fashion.

Moreover, the fashion industry context is relevant due to the high negative environmental and social effects of the fashion industry, which are caused by both the fashion consumers and fashion producers (McNeill & Venter, 2019, p. 369). Furthermore, many researchers (e.g., Mandarić et al., 2022; Niinimäki et al., 2020) state that a new perspective is needed to adopt a sustainable business model in the industry. As the scholars state, “slow fashion is the future” (Mandarić et al., 2022, p. 14; Niinimäki et al., 2020, p. 198).

To achieve the necessary change in the industry, companies can intervene with different actions to try to close the attitude-behavior gap (Lee et al., 2020, p. 650). The gap can be reduced by improving the understanding of sustainable fashion consumption (Dhir et al., 2021, p. 9), as understanding the factors behind consumption is crucial to intervening in consumer behavior (Busalim et al., 2022, p. 1805). Furthermore, the results of recent studies suggest that green marketing can help influence consumers to overcome the attitude-behavior gap and purchase green products (Sagapova et al., 2022, p. 4; Sharma, 2021, p. 1228; Mandarić et al., 2022, p. 15).

However, more research is needed as there is still limited research on all the different factors affecting sustainable consumption (Nguyen et al. 2018, p. 119). Dhir et al. (2021, p. 10) suggest that different factors, such as price sensitivity, should be further explored to close the attitude-behavior gap in sustainable fashion consumption. Moreover, Mandarić et al. (2022, p. 15) also suggest that the impact of factors such as brands, price, and design, on sustainable consumption should be further explored. Therefore, a comprehensive study of the different factors that could close the attitude-behavior gap in the fashion industry is needed.

## **1.2 Research question and objectives of the study**

The primary objective of this thesis is to investigate the factors which contribute to closing the consumers’ attitude-behavior gap for sustainable consumption in the fashion

industry to help the transition from fast fashion to slow fashion. Accordingly, the main research question is:

*What factors contribute to closing the consumers' attitude-behavior gap for sustainable consumption in the fashion industry?*

The research question is supported by the sub-objectives, which are:

1. To explore the conceptualization, importance, and barriers of sustainable consumption.
2. To increase the understanding of the concept of the consumer attitude-behavior gap.
3. To explore the factors that contribute to closing the consumer attitude-behavior gap of sustainable consumption.
4. To empirically explore the factors that contribute to closing the consumers' attitude-behavior gap for sustainable consumption in the fashion industry.

### **1.3 Delimitations of the study**

The theoretical framework of this thesis will focus on several theories in the field of sustainable consumption. The study will explore and identify the conceptualization, importance, and barriers of sustainable consumption through a comprehensive literature review of the existing literature in the field. The research will be limited to the context of sustainable fashion consumption and no other sustainable objects will be studied.

Additionally, the thesis will present a theoretical model that outlines the various factors contributing to closing the consumer attitude-behavior gap in sustainable fashion consumption. This model will be empirically tested by collecting data from Finnish fashion consumers to determine whether the identified factors influence sustainable purchasing behavior.

## 1.4 Definitions of the key terms

There are a few notable key terms that are used throughout this thesis. These are sustainable consumption, sustainable fashion, fast fashion, sustainable fashion consumption and the attitude-behavior gap. The definitions for these terms are presented in Table 1 below.

**Table 1.** Definitions of the key terms.

Key term	Definition
Sustainable consumption	Sustainable consumption is one of the seventeen Sustainable Development Goals of the United Nations' Agenda for Sustainable Development. The goal mandates countries to “ensure sustainable consumption and production patterns” (United Nations, 2015, p. 26). According to Öndoğan et al. (2022) sustainable development is “developing without harming resources in order to transfer them to future generations while using today’s resources” (p. 394). In other words, sustainable consumption refers to a shift in consumption patterns to conserve resources for future generations and prevent environmental deterioration (Bengtsson et al., 2018, p. 1538).
Sustainable fashion	The literature offers various explanations and definitions of sustainable fashion, with terms such as ethical clothing, slow fashion and eco-fashion often are used to describe it (Busalim et al., 2022, pp. 1805-1806). However, researchers agree that the aim of sustainable fashion is to provide a more sustainable alternative to traditional fashion (McNeill & Moore, 2015, p. 213). Ronda (2024) defines sustainable fashion as “clothing that is designed, produced, distributed, and used in ways that are eco-friendly along with ways that value social welfare and worker rights” (p. 50).
Fast fashion	Fast fashion is clothing that is trend driven (Papasolomou et al., 2023, p. 195), mass-produced, low-cost, and made quickly and

Key term	Definition
	<p>cheaply (Fletcher, 2010, p. 260). They are designed to have a short lifespan, which encourages frequent purchases and increases consumption (Fletcher, 2010, p. 260; Sagapova et al., 2022, p. 4). The profit mode is based on reducing production costs and distributing as much and as quickly as possible (Mizrachi &amp; Tal, 2022, p. 1154). It is the preferred business model in the current fashion industry (Legere &amp; Kang, 2020, p. 1).</p>
Sustainable fashion consumption	<p>Sustainable fashion consumption has various approaches, with the most well-known being the concept of slow fashion, first introduced by Fletcher (2010). The core idea is to replace the fast fashion model with a more socially and environmentally responsible model (Mizrachi &amp; Tal, 2022, p. 1162). Sustainable fashion consumption involves both reducing consumption levels and increasing sustainable production standards (Freudenreich &amp; Schaltegger, 2020, p. 3).</p>
Attitude-behavior gap	<p>The attitude-behavior gap refers to the phenomenon where consumers express concern for the environment and hold positive intention and attitudes towards sustainability but do not act accordingly (Chaturvedi et al., 2022, p. 635). This gap is explained by multiple barriers that prevent consumers from acting sustainably (Teufer &amp; Grabner-Kräuter, 2023, p. 768). These barriers are for example lack of social acceptance, lack of awareness and perceived high prices (McNeill &amp; Moore, 2015, p. 221).</p>

## 1.5 Previous studies

This study uses several different previous studies as sources. Table 2 below lists the most notable previous studies. These studies were used in the literature review and to construct the questionnaire in the empirical study part of this thesis.

**Table 2.** Relevant previous studies.

<b>Names</b>	<b>Nature of study</b>	<b>Methodology and sample size</b>	<b>Findings</b>
Blas Riesgo, Lavanga & Codina (2023)	Empirical	Quantitative, 1 063 participants	<b>Barriers</b> : lack of trust, high prices
Brandão & Costa (2021)	Empirical	Quantitative, 669 participants	<b>Barriers</b> : environmental apparel knowledge, perceived value, price sensitivity, product attributes and variety, availability and scepticism
Diddi, Bloodhart, Bajtelsmit & McShane (2019)	Empirical	Qualitative, 41 participants	<b>Factors</b> : Perceived value, sustainability commitment <b>Barriers</b> : Perceived lack of variety/ style, perceived lack of availability, price, scepticism, and lack of knowledge
Ronda (2024)	Empirical	Quantitative, 376 participants	<b>Barriers</b> : Low availability of sustainable fashion, low awareness of the adverse effects of fast fashion and lack of trust in sustainability claims
Wiederhold & Martinez (2018)	Empirical	Qualitative, 13 participants	<b>Barriers</b> : Price, transparency, image, lack of availability, inertia, consumption habits and lack of knowledge

## **1.6 Structure of the study**

There are five main parts to this study. The first chapter is an introductory chapter that provides the background to the study and presents the research questions and objectives for the study. The first chapter also includes the delimitations of the study, previous research relevant to the study and the structure of the study.

The second main chapter will cover the theoretical background of the thesis through a comprehensive literature review. This literature review will present the existing literature and theories on sustainable consumption, sustainable fashion, and the attitude-behavior gap. The barriers to sustainable fashion consumption are presented and based on these, six factors that could bridge the attitude-behavior gap are constructed using previous studies as a theoretical background. Six hypotheses are then presented after each sub-chapter. The chapter concludes with the model for this study.

The third chapter of this thesis covers the methodology of the empirical part of this thesis. This chapter explains the choice of research approach and method. The data collection process is also presented. Finally, the credibility of the research is covered by assessing the reliability and validity of this study.

The fourth chapter presents the empirical analysis and findings of this thesis. The demographic characteristics of the respondents of this study are presented. In addition, the confirmatory factor analysis and data analysis are presented in this chapter.

Finally, the fifth chapter of this study concludes this study with discussion and conclusions. In the fifth chapter, the main empirical findings are discussed, and the theoretical and empirical implications are presented. Furthermore, the directions for future research and the limitations of this study are also presented.

## **2 Literature review**

This chapter presents the most important approaches and models of sustainable consumption, sustainable fashion consumption, the barriers to sustainable consumption, the attitude-behavior gap, and the factors to close the gap. It begins by defining sustainable consumption and its relevance. Next, it conceptualizes sustainable fashion consumption and addresses the relevance of the subject. Subsequently, the concept of attitude-behavior is addressed in the context of the fashion industry. To understand the attitude-behavior gap in the fashion industry, this subchapter will introduce the barriers that cause the gap. It will then present the factors that could help close the attitude-behavior, and the chapter will conclude with the study's model.

### **2.1 Sustainable consumption**

Climate change, economic growth, population growth, and related concerns have led to significant attention being given to the concept of sustainable consumption by researchers, experts, and policymakers (Lim, 2017, p. 78). The population is growing and demanding more resources, and consumption levels are constantly rising (Chaturvedi et al., 2022, p. 635). As a result, consumption accounts for over 60% of the world's gross domestic product (Jasrotia et al., 2023, p. 245). According to Chaturvedi et al. (2022, p. 635), current levels of consumption exceed the earth's resource capacity, causing harm to its environmental and ecological balance.

Moreover, sustainable consumption is an essential factor of the United Nations' 2030 Agenda for Sustainable Development (Bengtsson et al., 2018, p. 1537). SDG 12, one of the seventeen Sustainable Development Goals, requires countries to "ensure sustainable consumption and production patterns" (United Nations, 2015, p. 26). To achieve this, companies must implement strategies to optimize resource utilization and minimize waste by 2030 (Jasrotia et al., 2023, p. 246).

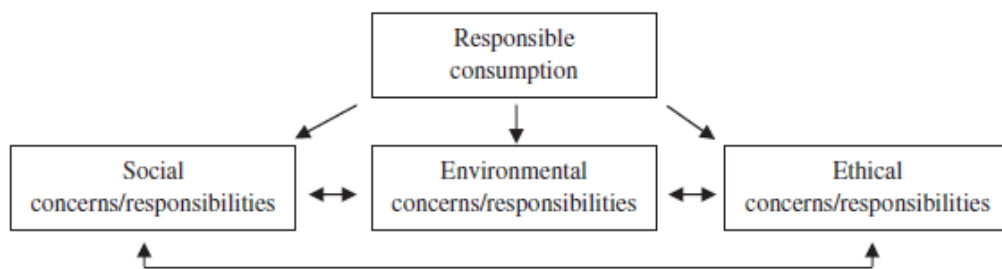
The UN's 2030 agenda proposes that a change in consumption patterns is necessary to prevent environmental deterioration and conserve resources for future generations (Bengtsson et al., 2018, p. 1538). In other words, limiting wasteful resource consumption is crucial for the survival of our planet and human civilization (Teufer & Grabner-Kräuter, 2023, p. 765). The United Nations' Sustainable Development Goal 12 aims to preserve the earth's resources for future generations while also protecting nature and wildlife as more than just a resource for humans (Bengtsson et al., 2018, p. 1538). Similarly, Öndoğan et al. (2022) define sustainable development as "developing without harming resources in order to transfer them to future generations while using today's resources" (p. 394).

Furthermore, researchers from various fields have attempted to address the issue of changing consumer consumption patterns (Bengtsson et al., 2018, p. 1534). The customer-centric sustainability approach was first introduced by Sheth et al. (2011), who state that customers play a crucial role in achieving certain sustainability goals. The concept is that consumers hold the power to select their preferred goods and services, and companies adjust their operations to meet changing customer preferences (Parvatiyar & Sheth, 2023, p. 797). This implies that if consumers opt for sustainable options, companies will need to offer sustainable products and services.

Consequently, researchers are attempting to identify factors that could influence consumers' consumption habits (Jasrotia et al., 2023, p. 246). Therefore, the literature presents different perspectives on how sustainable consumption practices could be achieved. Lim (2017, p. 72) identifies three main approaches to sustainable consumption: responsible consumption, anti-consumption and mindful consumption. Let us explore these approaches further.

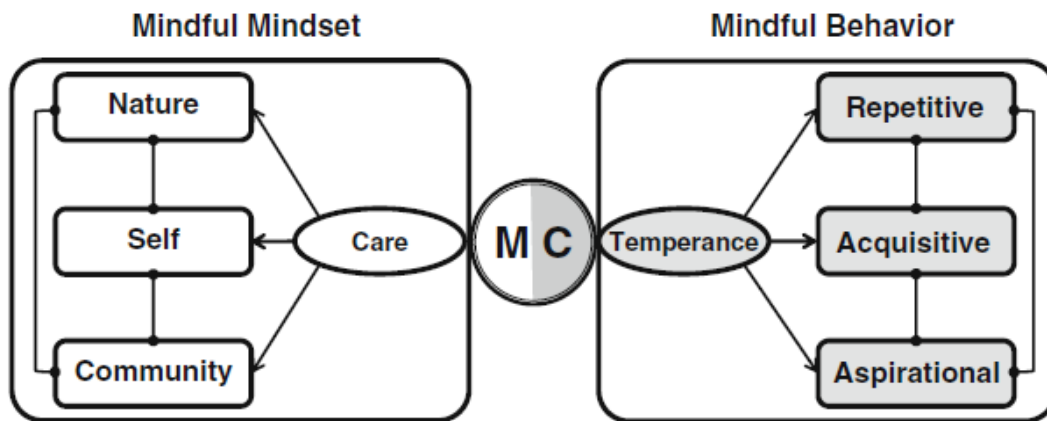
*Responsible consumption* was first introduced by Fisk (1973), who states that it "refers to rational and efficient use of resources with respect to the global human population" (p. 24). Today, responsible consumption covers the social, environmental and ethical

dimensions of consumption, as shown in Figure 1. Lim (2017) argues that “responsible consumers' social concerns, environmental concerns, and ethical concerns are translated into responsibilities that can be expressed through consumers' consumption decisions” (p. 72). In other words, consumers who practice responsible consumption are aware of the ethical, environmental, or social issues that arise from consumption (Lim, 2017, p. 76). This results in consumers taking responsibility for these concerns, which are expressed through their choices and purchasing behavior.



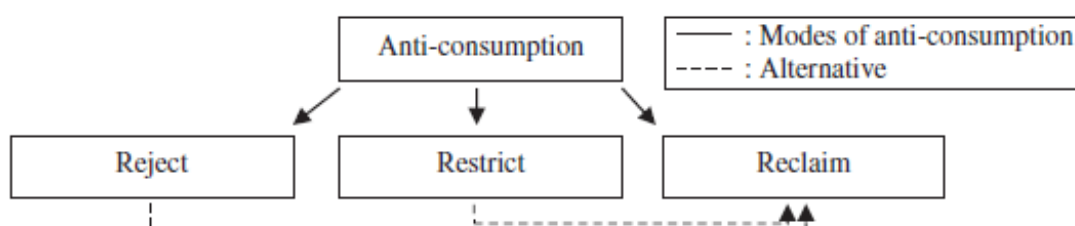
**Figure 1.** Responsible consumption (Lim, 2017, p. 71).

*Mindful consumption* was first introduced by Sheth et al. (2011, p. 27), who state that mindful consumption consists of a mindful mindset and mindful behavior as illustrated in Figure 2. The mindful mindset includes beliefs, values, and expectations that influence consumption behavior and shape the perception of consumption effects. The main characteristic of a mindful mindset is the concern for the consequences of consumption, which can be divided into three distinct areas: caring for self, caring for the community, and caring for nature. Additionally, mindful behavior requires temperance to avoid the three most common overconsumption behaviors: acquisitive, repetitive and aspirational consumption. In conclusion, mindful consumption suggests that consumers who are more aware of themselves, nature and their community are less likely to engage in sustainable consumption practices as they understand the consequences of their purchase choices (Lim, 2017, pp. 75-76).



**Figure 2.** Mindful consumption (Sheth et al., 2011, p. 27).

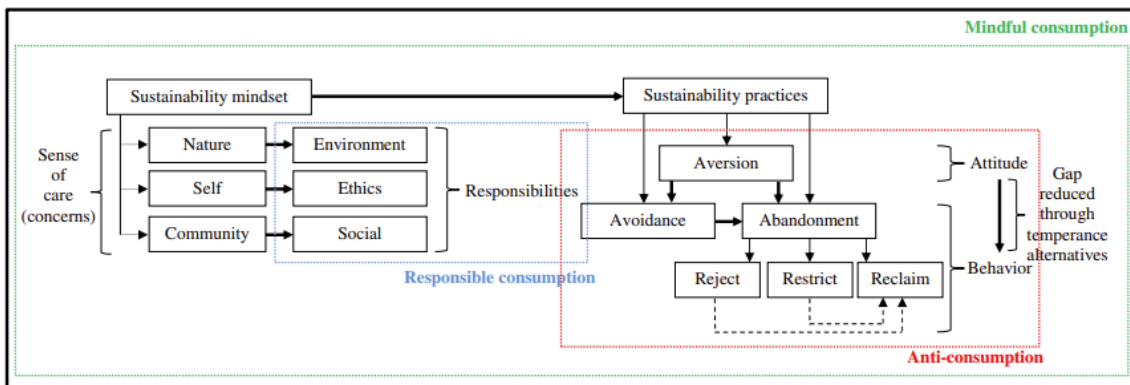
*Anti-consumption* refers to consumer behavior where individuals choose not to consume in some way. Lim (2017, p. 73) explains that consumers may refuse to consume a particular brand or product due to personal or social reasons, such as environmental concerns. Figure 3 illustrates this concept, where rejection, restriction and reclamation are different ways to practice anti-consumption. Rejection occurs when consumers intentionally exclude brands or products from their production cycles. When complete rejection is not feasible, consumers may choose to restrict their consumption, meaning that they reduce their consumption of particular brands or products. Reclamation, however, offers an alternative that aligns with the attitudes and values of consumers who reject and restrict their purchasing choices.



**Figure 3.** Anti-consumption through rejection, restriction, and reclamation (Lim, 2017, p. 74).

Furthermore, Lim (2017, pp. 76-77) integrated the key theoretical perspectives of responsible consumption, anti-consumption, and mindful consumption into a

comprehensive model for sustainable consumption as illustrated in Figure 4. The concept of their model is that consumers cultivate a sustainability mindset by developing a sense of responsibility towards nature, themselves, and the community. These responsibilities subsequently influence the attitudes and behaviors of consumers that influence consumption behavior. Therefore, sustainable consumption occurs when consumers successfully translate their concerns into actions that promote sustainability. This involves avoiding and abandoning unsustainable practices.



**Figure 4.** Integrated model for sustainable consumption (Lim, 2017, p. 77).

In conclusion, Lim (2017, p. 77) suggests that sustainable consumption can only be achieved by using a combination of different theoretical perspectives. Relying on a single concept provides only a partial understanding of sustainable consumption, whereas a synthesis of theoretical perspectives could lead to a deeper understanding that is necessary to promote sustainable consumption. This approach could facilitate the needed change in consumer consumption patterns.

## 2.2 Sustainable fashion consumption

This subchapter introduces sustainable fashion consumption. Firstly, it presents the importance of sustainable fashion consumption by discussing the negative environmental and social effects caused by the current fast fashion system. Secondly, it conceptualizes sustainable fashion and sustainable fashion consumption.

### 2.2.1 The importance of sustainable fashion consumption

One of the most significant issues in today's world is the rapid depletion of natural resources, which is particularly crucial in the fashion industry due to its fast pace of production and consumption (Öndoğan et al., 2022, p. 407). The fashion industry's unsustainable practices are straining the environment and social welfare of the world (McNeill & Moore, 2015, p. 212). Additionally, fashion consumption is at an all-time high, which has raised concerns among environmentalists and psychologists regarding its environmental and social impact (Legere & Kang, 2020, p. 1). As a result, the fashion industry is one of the least sustainable industries globally (Sagapova et al., 2022, p. 4).

The increased negative impacts and depletion of natural resources are the results of a shift in the industry in the recent decade (Öndoğan et al., 2022, p. 408) towards fast fashion practices. Fast fashion has become the preferred business model in the fashion industry (Legere & Kang, 2020, p. 1; Pereira et al., 2021, p. 25), and has significantly transformed the clothing industry over the past few decades (McNeill & Moore, 2015, p. 212). The fashion industry's supply chains have become globalized (Niinimäki et al., 2020, 191) and the pace of clothes production has increased. This has led to an increase in the environmental impact of both production and consumption of clothing (Öndoğan et al., 2022, p. 408).

The term *fast fashion* refers to clothing that is mass-produced, low-cost, and made quickly and cheaply using inexpensive materials and low-wage labor (Fletcher, 2010, p. 260). The styles are often copied from high-end brands, brought to markets fast, produced in large quantities, and have a short lifespan, encouraging frequent purchases and increasing consumption (Fletcher, 2010, p. 260; Sagapova et al., 2022, p. 4). Fast fashion emerged in the early 2000s as a result of global fashion retailers implementing new business practices that prioritized the rapid sales of trendy clothing to young consumers (Papasolomou et al., 2023, p. 194).

The rise of fast fashion has many explanations. Traditionally, consumption has been viewed as a stand-in for market demand, leading to the idea that higher consumption levels are always better for businesses (Sheth et al., 2011, p. 25). Fast fashion follows this idea, as its business model is based on increasing production and sales, rapid manufacturing, and short product life cycles (Niinimäki et al., 2020, p. 195). As a result, fashion cycles have become faster, and demand for fashion garments is rising (McNeill & Moore, 2015, p. 212).

To remain competitive, companies have had to adapt and increase production (Öndoğan et al. 2022, p. 404), resulting in lower prices. This trend towards lower prices in the fashion industry (Papasolomou et al., 2023, p. 194) has caused a shift in consumer purchasing habits (Fletcher, 2010, p. 262). Lower prices have led to an increase in the quantity of clothes purchased by consumers (Mizrachi & Tal, 2022, p. 1156). As a result, consumers' purchasing behavior has become disconnected from their needs (Peters et al., 2021, p. 8) and consumers buy clothes even when they are not needed (Öndoğan et al., 2022, p. 404).

This change in consumption habits is a critical sustainability issue. Fletcher (2010, p. 262) explains that the low price of fast-fashion products has diminished the perceived value of clothing, as garments are often not designed to withstand normal use. Due to the low quality of the fabric and construction, the clothes wear out quickly and need to be replaced often (Fletcher, 2010, p. 262). Thus, fast fashion's increasing popularity has resulted in a throwaway culture, where fashion products are bought, worn, and discarded quickly (Legere & Kang, 2020, p. 1). In other words, fast fashion brands have established a model of excessive fashion consumption that negatively affects social and environmental well-being (Atik & Ozdamar Ertekin, 2023, p. 13). According to Peters et al. (2021, p. 8), statistics show that consumers' clothing consumption per capita increased by 47% between 2000 and 2015. They suggest that the rise of fast fashion is one factor contributing to this increase.

Moreover, with the rise in demand within the fashion industry, some companies have resorted to unsustainable production methods to keep up with demand and increase profit margins (McNeill & Moore, 2015, p. 212). Some fashion brands have outsourced production to low-wage countries, resulting in a geographical separation that causes numerous sustainability issues (Peters et al., 2021, p. 2). Brands that move production facilities to emerging countries to reduce production costs often end up using unethical labor and exploiting human rights (Sagapova et al., 2022, p. 4). Clothing is often manufactured in sweatshops under unsafe working conditions (Leger & Kang, 2020, p. 1). This has increased the negative social effects caused by the fashion industry (McNeill & Venter, 2019, p. 368). The relocation of production to countries with lower-cost labor has also increased the complexity of supply chains and decreased their transparency (Niinimäki et al., 2020, p. 190). As a result, consumers and retailers may not be fully informed about the environmental and social issues of production (Peters et al., 2021, p. 2).

As a result, the fashion industry's negative environmental impacts are continuously increasing (Öndoğan et al., 2022, p. 408). The fashion industry's significant environmental impact includes high levels of CO<sub>2</sub> emissions (Niinimäki et al., 2020, p. 191), air pollution, solid waste generation, energy usage, and odor generation (Öndoğan et al., 2022, p. 408). Waste management remains a challenge in many countries where clothes are produced, as there are no national-level strategies in place (Öndoğan et al. 2022, p. 407). Niinimäki et al. (2020, p. 194) state that fast fashion has led to a significant increase in textile waste generated by the fashion industry, both pre-consumer and post-consumer. Pre-consumer waste is generated during production, such as fabric waste, while post-consumer waste refers to discarded garments.

Moreover, the fashion industry is responsible for producing 20% of the world's wastewater (Öndoğan et al., 2022, p. 395), which is often heavily polluted (Sagapova et al., 2022, p. 4). Some companies even discharge this high chemical wastewater into nature (Öndoğan et al., 2022, p. 408). Further, the environmental impact of the industry

can be attributed to the use of synthetic fibers (Shen et al., 2012, p. 234) such as polyester (Peters et al., 2021, p. 4), which increase chemical use and CO<sub>2</sub> emissions (Niinimäki et al., 2020, p. 191). Additionally, the transportation of products from production facilities to retailers via container boats and air cargo has a negative impact on the environment (Niinimäki et al., 2020, p. 191).

In conclusion, the fashion industry must become more sustainable for the sake of the planet's health (Lee et al., 2020, p. 650). Sustainably produced fashion could be the solution to the environmental and social strain caused by increased consumption (McNeill & Moore, 2015, p. 212; Öndoğan et al., 2022, p. 408). It is important to note that both producers and consumers contribute to the negative effects of fashion consumption on the world (McNeill & Venter, 2019, p. 368). Niinimäki et al. (2020) summarize that "the current business logic in the fashion sector is based on ever-increasing production and sales, fast manufacturing, low product quality and short product life cycles, all of which lead to unsustainable consumption, fast material throughput, substantial waste and vast environmental impacts" (p. 195). Moreover, clothing production or consumption cannot be stopped altogether as clothing is one of the necessities for people's lives (Öndoğan et al., 2022, p. 393). This highlights the need for a change within the fashion industry.

### **2.2.2 Conceptualization of sustainable fashion consumption**

*Sustainable fashion* is a term that has various explanations, ideologies, and strategies. The literature presents sustainable fashion from different perspectives and uses different terms, such as ethical clothing, slow fashion, and eco-fashion (Busalim et al., 2022, pp. 1805-1806). The main objective of sustainable clothing is to offer an alternative for fashion-conscious consumers to purchase ethical clothing while still fulfilling their desire to purchase fashion (McNeill & Moore, 2015, p. 213). It is a more sustainable alternative to the environmentally damaging practices of fast fashion (Brandão & Costa, 2021, p. 744).

Furthermore, researchers argue that there is no clear definition of sustainable fashion, and it can be understood from a variety of perspectives (Henninger et al., 2016, p. 411). Ronda (2024) provides one definition of sustainable fashion in their study as “clothing that is designed, produced, distributed, and used in ways that are eco-friendly along with ways that value social welfare and worker rights” (p. 50). Henninger et al. (2016, p. 410) also present similar ideas, stating that a brand’s sustainability is defined by factors such as a transparent supply chain, environmentally friendly materials, and social impacts, such as fair wages and safe working conditions. Öndoğan et al. (2022, p. 394) add that sustainable clothing must be sustainable throughout its entire supply chain. Thus, sustainable fashion brands must consider the entire life cycle of a garment, from production to disposal (McNeill & Venter, 2019, p. 369). This concept known as cradle to grave encompasses all phases of a garment’s life, including production, usage, and disposal (Mizrachi & Tal, 2022, p. 1162).

Therefore, consuming sustainably produced fashion does not necessarily mean that fashion is being consumed sustainably. This idea is presented by Henninger et al. (2016, p. 411), who state that sustainable fashion clothes are produced to satisfy the same consumer needs as unsustainable clothes and are intended to be purchased by customers. They state that the demand for sustainably produced fashion may increase in the future, leading to higher production levels and back to unsustainable fast fashion business practices. Therefore, sustainably produced clothing and sustainably consumed clothes may not fit the same definition (McNeill & Venter, 2019, p. 369).

The concept of *sustainable fashion consumption*, specifically consumer purchase choices, has been studied by many researchers (Freudenreich & Schaltegger, 2020, p. 3). Various approaches have been proposed, with the aim of replacing the fast fashion model with a more sustainable alternative that produces positive social and environmental impacts (Mizrachi & Tal, 2022, p. 1162). Sustainable consumption requires changing current unsustainable consumption behaviors that cause negative environmental impacts, increased waste, and fast material usage in the fashion industry (Niinimäki et al., 2020, p.

195). Niinimäki et al. (2020, p. 198) emphasize the significance of this concept, stating that the only option for the long-term viability of the fashion industry is to completely reject the fast fashion business model.

The idea to create an alternative model to fast fashion was first introduced by Fletcher (2010), who created the concept of *slow fashion*. Slow fashion is based on sustainability and ethical behavior (Henninger et al., 2016, p. 411) and it aims to address the issues of overconsumption and overproduction caused by fast fashion (Niinimäki et al., 2020, p. 198). The idea behind this concept is that fast fashion has created a culture of overconsumption, resulting in consumers purchasing clothes they do not actually need (Öndoğan et al., 2022, p. 404). Therefore, sustainable clothing, from the perspective of slow fashion, refers to clothing that consumers use multiple times (Vesterinen & Syrjälä, 2022, p. 9).

Sustainability in production	high	High volume, sustainable production	Low volume, sustainable production (Slow fashion)
	low	High volume, conventional production (Fast fashion)	Low volume, conventional production (Luxury fashion)
		high	low
		Consumption level	

**Figure 5.** Sustainability at the intersection of clothing production and consumption (Freudenreich & Schaltegger, 2020, p. 3).

Furthermore, Freudenreich and Schaltegger (2020, p. 3) define slow fashion as the combination of reducing consumption levels and increasing sustainable production standards. This concept includes the idea that sustainable clothing consumption involves not only purchasing sustainably produced clothes but also reducing the amount of clothing purchased. It is visualized in the top right of the grid in Figure 5, which presents the classification grid of production and consumption for different concepts in the fashion industry. The bottom left box of the grid represents fast fashion, a business model characterized by unsustainable production and high production levels, which is the opposite of slow fashion.

Therefore, reducing consumer consumption levels is a crucial factor in researching sustainable fashion consumption and slow fashion business models. It is discussed in the literature using different strategies. One strategy is abstinence from purchases, which involves buying fewer clothes less frequently (Mizrachi & Tal, 2022, p. 1159; Vesterinen & Syrjälä, 2022, p. 8). This strategy is also recognized by sustainable consumers, as noted by Pereira et al. (2021, p. 25), who found that most of the participants in their study had reduced their overall clothing consumption when trying to act more sustainably. Additionally, according to Freudenreich and Schaltegger (2020, p. 3), consumers' abstinence from making purchases presents an opportunity for companies to prioritize quality of production over current practices of prioritizing high speeds and low costs. Although this may result in increased prices, consumers may be more willing to pay more for each garment if they are buying fewer clothes (Mizrachi & Tal, 2022, p. 1160).

Another strategy to promote a decrease in consumption in the literature is to increase the lifespan of existing clothes through proper clothes care. According to Vesterinen and Syrjälä (2022, p. 8), taking care of existing clothes is important in decreasing the consumption of new clothes. Therefore, increasing knowledge of laundry is an important strategy that promotes longer use of clothes. Similarly, Mizrachi and Tal (2022, p. 1160) suggest careful washing can preserve clothes' colors and quality and extend their lifespan. Additionally, repairing clothes can increase their lifespan and reduce the need

to purchase new ones (Vesterinen & Syrjälä, 2022, p. 5). Repairing clothes is an important strategy from a consumer perspective, as Bennetta and Oeppen Hill (2022, p. 422) report that some participants in their study believe that supporting consumers' knowledge on how to repair their clothes instead of disposing of them could be a solution to unsustainable consumption habits. Thus, caring for and repairing existing clothes can be an effective alternative to fast fashion, a business model where clothes are designed not to last (Mizrachi & Tal, 2022, p. 1160).

To increase the lifespan of existing clothes, repurposing them is also a viable option. Upcycling clothes, for instance, is a way to reduce the need for acquiring new clothes (Mizrachi & Tal, 2022, p. 1159; Vesterinen & Syrjälä, 2022, p. 8). According to Mizrachi and Tal (2022, p. 1159), upcycling involves creating clothes from leftover textiles, such as those from bedding or curtains, which eliminates the need for additional resources. Repurposing clothes also includes the strategy of do-it-yourself (DIY) clothes, which refers to individuals making their own clothes (Freudenreich & Schaltegger, 2020, p. 5). According to Vesterinen and Syrjälä (2022, p. 5), DIY clothes are also associated with anti-consumption practices.

To reduce consumption, it is important that clothes are designed for longevity and last a long time (Vesterinen & Syrjälä, 2022, p. 5). These clothes usually have a timeless design, which can strengthen the consumers' emotional ties to the garment (Freudenreich & Schaltegger, 2020, p. 5). This can further extend the useful life of clothing (Mizrachi & Tal, 2022, pp. 1159-1160), and decrease their negative environmental impact. Purchasing durable clothing can reduce the consumption of fast fashion clothes (Pereira et al., 2021, p. 25), which are intentionally designed to be disposable.

Clothing designed for longevity also promotes circular economy business models, which are an essential part of sustainable clothing consumption strategies (Mizrachi & Tal, 2022, p. 1160; Niinimäki et al., 2020). Circular economy models aim to reduce waste by producing long-lasting clothes that can be easily repaired or recycled (Mizrachi & Tal, 2022,

p. 1160). They often feature timeless design, which enhances opportunities for reuse (Freudenreich & Schaltegger, 2020, p. 5). In circular economy business models, clothes can be reused through various strategies, such as collaborative use (Mizrachi & Tal, 2022, p. 1160), lending or borrowing, sharing, renting, and swapping (Vesterinen & Syrjälä, 2022, p. 8). McNeill and Venter (2019, p. 370), found positive results suggesting that group ownership could be an effective mode for sustainable fashion consumption.

Another important strategy in sustainable fashion consumption is the use of second-hand clothes. This strategy also extends the useful life of clothing (Park & Lin, 2020, p. 623) and reduces the materials needed to produce new clothes (Vesterinen & Syrjälä, 2022, p. 3). Mizrachi and Tal (2022, p. 1159) argue that buying and selling second-hand clothes promotes the use of clothing that has already been purchased and worn by other consumers, without creating any additional waste. However, purchasing second-hand clothes does not necessarily reduce the possibility of overconsumption, as noted by Vesterinen and Syrjälä (2022, p. 3). Further, purchasing second-hand clothes can obscure transparency in the supply chain (Mizrachi & Taz, 2022, p. 1162), potentially enabling the use of unsustainable production practices.

In conclusion, many companies have already begun to offer sustainable options due to the various alternative strategies in the industry and the current global interest in sustainability issues, but the success of this shift relies on consumer support through purchasing (McNeill and Moore, 2015, p. 212). Fortunately, researchers such as Pereira et al. (2021) report that consumers have already shown some changes in their behavior in recent years. However, there are still consumers who, despite holding sustainable values, do not consume sustainably. This creates an attitude-behavior gap in the field.

### **2.3 Understanding the attitude-behavior gap**

Sustainable consumption has mostly been studied using the Theory of Planned Behavior (TPB) developed by Ajzen (1991), which is one of the most influential and widely used

theoretical frameworks in the field of social psychology (Wiederhold & Martinez, 2018, p. 420). According to the TPB, individual's behavioral intentions reflect their attitudes, subjective norms, and perceived behavioral control (Ajzen, 1991). Thus, an individual's intention to perform a behavior is directly influenced by their attitude towards it (Newton et al., 2015, p. 1975). This idea is supported by researchers such as Jasrotia et al. (2023, p. 257), who state that attitudes towards sustainable consumption have the greatest impact on purchase intention.

However, the TPB does not fully explain consumer behavior in the area of sustainable consumption (Elhaffar et al., 2020, p. 3). Researchers are uncertain about how consumers decide to buy environmentally friendly products (Park & Lin, 2020, p. 624), and many consumers do not consume sustainably. Most fashion consumers recognize the importance of sustainability but do not translate it into behavior (Pereira et al., 2021, p. 26), suggesting that there is an *attitude-behavior gap* in the field. The attitude-behavior gap in the field of sustainable fashion means that environmental concern and the intention to act sustainably are not enough to make consumers consume sustainably without supporting social norms (Chaturvedi et al., 2022, p. 635).

Furthermore, the attitude-behavior gap is a widely recognized phenomenon in the literature on sustainable consumption. ElHaffar et al. (2020) define the gap as "the inconsistency between what the individual says regarding his/her growing concern about the environmental problems and what he/she does in terms of actions, behaviors, and contributions to lessen the consequences of these problems" (p. 4). The attitude-behavior gap thus illustrates how difficult it is for consumers to translate their intentions for sustainable purchasing into actual behavioral change (Ronda, 2024, p. 56).

These consumers who fall into the attitude-behavior gap may be aware of the various climate and environmental issues but do not engage in sustainable consumption practices (Chaturvedi et al., 2022, p. 636). Instead, they make purchasing decisions without considering environmental impacts (Mandaric et al., 2022, p. 14). They are not

motivated, educated, informed, aware, or knowledgeable enough to change their behavior (Pereira et al., 2021, p. 26), and they may also face barriers, such as high prices, poor availability, and convenience, that discourage them from sustainable consumption (Chaturvedi et al., 2022, p. 636). The gap between consumer attitudes and behavior gap is most pronounced among young people, who seem to be the demographic most aware of sustainable fashion products, yet the least likely to consume them (Park & Lin, 2020, p. 627).

The attitude-behavior gap in the fashion industry is evident among fast fashion consumers. According to Papasolomou et al. (2023, pp. 199-200), 75% of their study's participating fast fashion consumers were aware of the negative social and environmental impacts of fast fashion. Around 80% of respondents also reported having strong negative feelings about the amount of waste and pollution produced by the fast fashion industry and the use of child labor in the industry, yet they continued to consume fast fashion. Similar findings are reported by Ronda (2024, p. 51), who states that 71,5% of the purchases made by their study's participants were from fast fashion stores. However, the participants also showed positive attitudes towards sustainability, with over 60% of them stating that they would be willing to pay more for sustainably produced clothing and that it was fair to pay more. These findings highlight the fact that while fast fashion consumers may have strong positive feelings about sustainability in the fashion industry, they still engage in consumer behavior that goes against their own beliefs (Papasolomou et al., 2023, p. 200).

In explaining the existence of the attitude-behavior gap in the fashion industry, Teufer and Grabner-Kräuter (2023) state that people face many challenges in their daily lives that prevent them from behaving sustainably. They argue that without adequate information, knowledge, and competence about sustainability, consumers are unable to behave sustainably in the consumerist economy. This is in line with the findings by Wiederhold and Martinez (2018, p. 3420), who state that in addition to internal factors, such as attitudes, external factors also influence consumers' ethical behavior. This can lead to

the perceived attitude-behavior gap, where consumers would want to consume sustainably, but do not do so due to the influence of external factors.

Barriers to sustainable fashion consumption are explained by the current state of society, which enables unsustainable behavior by allowing consumers to choose unsustainable lifestyles (ElHaffar et al., 2020, p. 13). This can discourage consumers from choosing sustainable alternatives, despite their positive attitudes. Some consumers believe that their actions cannot make a difference and would be insignificant as the majority would still consume unsustainable fast fashion brands (Wiederhold & Martinez, 2018, p. 425). Teufer and Grabner-Kräuter (2023, p. 768) also argue that despite consumers' desire to engage in mindful and sustainable activities, there are multiple barriers that prevent sustainable and mindful consumption. Similarly, McNeill and Moore (2015, p. 221) argue that consumers face barriers such as lack of social acceptance, lack of awareness and perceived high prices that prevent them from adopting sustainable behaviors.

Understanding the barriers that prevent consumers from sustainable consumption is crucial to changing consumption practices. While solving consumption problems requires action from various actors, including governments, companies, and institutions (Parvatiyar & Sheth, 2023, p. 802), consumers are at the core of unsustainable consumption practices. To achieve a system-wide change towards sustainable consumption, change in individual consumption patterns is needed (Parvatiyar & Sheth, 2023, p. 797). Hence, consumers must willingly participate in environmental protection activities and demonstrate their concerns for the environment through their consumption behavior (Joshi & Rahman, 2019, p. 241). Therefore, the industry's greatest potential for a change in the industry lies in understanding and closing the attitude-behavior gap (Pereira et al., 2021, p. 25).

## **2.4 Barriers to sustainable fashion consumption**

Previous researchers have identified contextual barriers to sustainable fashion consumption (Ronda, 2024). In this chapter, five barriers from the previous literature are identified and presented. These are the low availability of sustainable clothing, the price, the lack of knowledge about sustainability and misconceptions, the lack of awareness about the negative effects, and the untrust.

### **2.4.1 Lack of awareness**

The lack of awareness about the negative effects caused by the fashion industry is one key barrier to sustainable consumption (Chaturvedi et al., 2022, p. 635). Due to the lack of awareness, consumers are not knowledgeable about why sustainable behavior is necessary (Teufer & Grabner-Kräuter, 2023, p. 773). Consequently, when consumers are not aware of the negative effects of fashion, they are less likely to try to reduce them with their own actions (Ronda, 2024, p. 56). In other words, insufficient awareness about the negative environmental and social effects of consumption choices hinders consumers' sustainable consumption behavior (Joshi & Rahman, 2019, p. 240) or prevents consumers from making sustainable choices altogether (Shen et al., 2012, p. 240).

Moreover, awareness is the foundation for mindful behavior (Teufer & Grabner-Kräuter, 2023, p. 766), so without sufficient awareness about the effects of consumption decisions, consumers are unable to make considered decisions. This becomes an issue as the increasing popularity of fast fashion brands has caused the supply chains of garments to become more complex and less transparent (Niinimäki et al., 2020, p. 190). Consequently, most consumers and retailers lack the necessary awareness about the effects of their purchase choices (Peters et al., 2021, p. 2). Confirming this, Bennetta and Oeppen Hill (2022, pp. 421-422), state that only those participants in their study who had a higher education or experience in the fashion industry were aware of the ethical and environmental issues caused by the fashion industry. The participants also reported that they

believed their education had positively impacted their sustainable consumption behavior.

Furthermore, although most consumers are concerned for the environment (Pereira et al., 2021, p. 17) they are not concerned or knowledgeable enough to change their behavior, which explains the attitude-behavior gap in the field. This is reported by for example, Pereira et al. (2021, pp. 17-18) who state that almost all participants in their study were aware that the fashion industry is one of the world's most polluting industries but did not implement this knowledge into their purchase choices. Similar findings are also reported by Ronda (2024, p. 56), who states that when consumers do not know the detrimental effects caused by fast fashion consumption, they have no reason to refrain from consuming fast fashion even when they are generally concerned for the environment. Indicating a need for increased awareness, Saari et al. (2021, pp. 7-8) explain that when consumers' knowledge about the environmental and social consequences of consumption increases, their environmental concerns increase to a higher level, which can result in sustainable consumption intention and behavior.

The barrier of lack of awareness is also worsened by the lack of social norms that support sustainable consumption. The social environment has a big effect of individuals' behavior, and the mainstream behavior model is not currently sustainable (Teufer & Grabner-Kräuter, 2023, p. 768). This causes some consumers to fall into the attitude-behavior gap where consumers are aware of the environmental and social issues, but they fail to change their behavior without supporting social norms in place (Chaturvedi et al., 2022, p. 635). According to Wiederhold and Martinez (2018, p. 425), consumers feel like their actions towards sustainable consumption would be meaningless as the masses would continue to purchase fast fashion and consume unsustainably. They continue their unsustainable consumption behaviors because other people do so as well.

#### **2.4.2 Lack of knowledge about sustainability and misconceptions**

Lack of knowledge about sustainability has been recognized to be one of the key barriers to sustainable consumption (Pereira et al., 2021). This is explained as sufficient knowledge is a prerequisite for autonomous behavior overall (Teufer & Grabner-Kräuter, 2023, p. 767). Therefore, if consumers do not know what sustainability is, they do not know how to turn their concerns into actual purchases even if they are concerned for the environment (Shen et al., 2012, p. 240). This idea is also reported by Newton et al. (2015, p. 1979), who state that consumers require information on the effects of their purchase choice before they can implement their environmental concerns into their consumption behavior. Confirming this, Pereira et al. (2021, p. 18) state that many consumers in their study reported that they would be motivated and willing to implement sustainability into their purchase behavior, but they did not know how to do so.

The barrier of lack of knowledge is caused by the fact that information on sustainable fashion is not easily available (Pereira et al., 2021, p. 26). This can be seen from the results of the study by Bennetta and Oeppen Hill (2022, p. 424), who describe that the participants in their study reported that they mainly got their information about sustainability from documentaries, social media, and news. Only 20,7% of the information came directly from the fashion brands themselves. Therefore, it is challenging for consumers to compare products for their sustainability (Teufer & Grabner-Kräuter, 2023, p. 767). As a result, consumers do not know which fashion brands are sustainable (Diddi et al., 2019, p. 206). The lack of information and comprehension can undermine consumers' sustainable values (Papasolomou et al., 2023, p. 199), which can discourage consumers' sustainable consumption behavior. Even if consumers are motivated to make sustainable choices, they must do extensive research themselves to gather adequate information on what truly is sustainable, which can hinder their motivation for sustainable purchase behavior (Pereira et al., 2021, p. 26).

The complexity of sustainable fashion increases the barrier of consumers' low knowledge. According to Teufer and Grabner-Kräuter (2023, p. 767), the lack of any

common labeling or regulations makes it difficult for consumers to choose the sustainable option even if they would be motivated to do so. They also state that due to the lack of common policies, companies communicate too little about sustainability, are not transparent enough, or fail to present information in a way that most people would understand. Similarly, Pereira et al. (2021, p. 26) state that the participants in their study understood the relevance of sustainability in the general context but lacked knowledge about it in the context of fashion. Also, McNeill and Moore (2015, p. 219) found similar results in their study and state that their study's participants lacked substantial knowledge of sustainable fashion.

The lack of knowledge is a substantial barrier especially in the field of sustainable fashion that has been reported by many researchers. For example, Bennetta and Oeppen Hill (2022, pp. 421-422) state that consumers have a very limited understanding of the different dimensions of sustainable fashion. The participants in their study had no knowledge about the effects caused by the resources or materials of fashion production. Similarly, Papasolomou et al. (2023, p. 199) state that the participants in their study had some general knowledge of sustainability, but low and even untrue knowledge on specific issues of sustainable fashion. In addition, Wiederhold and Martinez (2018, p. 425) also found evidence to support the fact that consumers have a low knowledge level of sustainable clothing. The young participants in their study reported having basic knowledge of sustainable fashion to some extent, but they had a lot of uncertainty regarding the specific classifications. This corresponds to the findings by Papasolomou et al. (2023, p. 201) who state that most consumers lack knowledge of materials, fabrics, and other specific things about sustainable fashion. The respondents in their study even reported false information, as they thought cotton to be the most environmentally friendly fabric although it is modal. This lack of knowledge prevents consumers from making sustainable consumption choices.

### 2.4.3 High prices

Price is the most influential factor for consumers when making purchase decisions (Teufer & Grabner-Kräuter, 2023, p. 770). Additionally, consumers are typically price-sensitive (Blas Riesgo et al., 2023, p. 10). Pricing is also one of the most crucial factors consumers consider when choosing to buy clothing (Wiederhold & Martinez, 2018, p. 424). Sustainably produced products are often more expensive than non-sustainable products in the markets due to the higher cost of production caused by, for example, the use of high-tech devices, use of environmentally friendly materials, and other systems (Öndoğan et al. 2022, p. 406). As a result, the high price of sustainable fashion products is one of the main barriers to their consumption (Blas Riesgo et al., 2023, p. 10; Pereira et al., 2021, p. 26).

The price barrier is worsened by fast fashion practices. Firstly, price-conscious consumers are more likely to buy fast fashion products (Mehta et al., 2022). When consumers are unaware of the reasons behind the low prices of fast fashion products, such as unethical work conditions, they do not comprehend the price difference compared to sustainable fashion (Bennetta & Oeppen Hill, 2022, p. 421). Secondly, according to Blas Riesgo et al. (2023, p. 10), fast fashion's low prices have reduced consumers' perceived value of clothing items and fashion. The low prices have also resulted in a throwaway culture where clothes are bought and thrown away very quickly (Legere & Kang, 2020, p. 1). Consumers prefer to spend the same amount of money to buy more cheap clothes than to buy a few more expensive pieces (Diddi et al., 2019, p. 205). Thus, it is more convenient to buy new, cheaply priced clothes instead of investing in high-quality pieces and maintaining and repairing existing clothes (Teufer & Grabner-Kräuter, 2023, pp. 767-768).

The price consciousness of consumers is evident as many researchers have reported that consumers themselves name too high prices as the main barrier to sustainable consumption. For example, Wiederhold and Martinez (2018, p. 424) state that the young participants in their study wished that ethical clothing products to be more affordably priced. Currently, the participants connected sustainable clothing to upper-class society and felt

like it was not available to most consumers due to the high prices. Similarly, Papasolomou et al. (2023, p. 201) state that the consumers who participated in their study were price-conscious and felt that they were financially restricted from making sustainable fashion consumption choices. Also, Diddi et al. (2019, p. 205) state that the participants in their study felt that they could not afford sustainable clothing options. Lastly, Bennetta and Oeppen Hill (2022, p. 426) report similar ideas, stating that 24% of the participants in their study would be influenced to shop sustainably if the prices were better.

However, there seem to be demographic differences on whether high prices act as a barrier to sustainable fashion consumption and some researchers have even found contradicting results. For example, Shen et al. (2012, p. 242) state that consumers are willing to pay higher prices for ethical clothing. Similar results are also reported by Ronda (2024), who states that they found no evidence to support the idea that high prices would decrease consumers' motivation to purchase sustainable fashion. Instead, they report that 64,1 % of consumers in their study were willing to pay more for fashion that is environmentally friendly and that aligns with their self-image. However, the ages of the respondents ranged from under 18 years to over 55 years of age. Similarly, neither Jacobs et al. (2018, p. 1165) found any evidence to support the price sensitivity of consumers. The respondents in their study were aged between under 30 and over 60 years old, and only 24,2% of respondents were under the age of 30. Thus, they state that although they did not find evidence to suggest the barrier of high prices, it can be explained by the overrepresentation of middle-aged consumers and high prices may be a barrier to other segments.

Concluding, the issue of high prices is especially relevant in the segment of young adults (Kreuzer et al., 2019, p. 12) and it is reported by many researchers, such as Chaturvedi et al. (2022). According to Diddi et al. (2019, p. 205), young adults without a steady income feel like they are unable to buy sustainable fashion due to it being too expensive for them. For example, Wiederhold and Martinez (2018, p. 424) state that some of the participants in their study, aged 23-30 years old, did not even consider purchasing

sustainable fashion products as they assumed that their price would be too high. Some participants in their study also confirmed that they understood the reasoning behind the higher prices of sustainable items, higher worker wages and natural materials, but were unable to afford the higher prices of sustainable fashion. Similarly, Pappasolomou et al. (2023, pp. 199-201) report that most of the respondents in their study were not willing to pay more for sustainable products despite being aware of the negative environmental impacts of the fashion industry. 85% of the participants in their study were aged between 18 and 26 years old.

#### **2.4.4 Low availability and bad image of sustainable fashion**

The low availability of sustainable products is one of the main barriers to sustainable clothing consumption (Nguyen et al., 2018, p. 126; Ronda, 2024). According to Wiederhold and Martinez (2018, pp. 424-425), consumers often follow their personal preferences when buying clothes and opt for unsustainable clothing items out of convenience if there are not enough sustainable clothing options available. They state the participants in their study were unable to name any sustainable brands or locate stores where they could find sustainable clothes, despite living in urban areas. This indicates there is a lack of availability in the markets. Additionally, consumers face an abundance of opinions in consumption situations, which makes choosing the sustainable option more difficult (Kumar & Dholakia, 2022, pp. 293-295).

Perhaps due to a lack of options, consumers' general assumptions about sustainable clothing are often negative (Wiederhold & Martinez, 2018, p. 424). This presents a crucial barrier to sustainable fashion consumption, as self-expression is one of the main reasons for fashion consumption and consumers use their clothing choices to express their values and personality (Legere & Kang, 2020, p. 3). According to Wiederhold and Martinez (2018, p. 424), consumers feel as though they would not be able to follow their personal style if they were to buy sustainable clothing. This is due to their perception that sustainable brands are unappealing and associated with negative stereotypes. The

fashion-conscious consumers of their study defined sustainable fashion as “old-fashioned, alternative and boring” (Wiederhold & Martinez, 2018, p. 424). Additionally, McNeill and Moore (2015, p. 219) found similar results in their study, as the participants of their study also believed that sustainably produced clothing would not be aesthetically pleasing.

The negative image and limited availability of sustainable clothing also contribute to the consumption of fast fashion. Mehta et al. (2022) found that fashion-conscious consumers tend to buy fast fashion products because buying cheap clothes enables them to update their wardrobes often. Similarly, McNeill and Moore (2015, p. 220) found that consumers who view fashion as part of their self-expression and want to constantly purchase new clothes are usually not particularly concerned with the environmental or social issues of the clothes. In summary, fashion-conscious consumers tend to prioritize their personal preferences over the greater good (ElHaffar et al., 2020, p. 14). Despite being aware of the negative effects of unsustainable consumption, they continue consuming this way and are unwilling to prioritize sustainability over their fashion needs (Nguyen et al., 2018, p. 649).

Furthermore, consumers are unlikely to alter their behavior unless prompted to do so, as their consumption habits drive their behavior. According to Wiederhold and Martinez (2018, p. 425), participants in their study stated a preference for the easier and more convenient option when purchasing clothing. They also believed that purchasing sustainable fashion requires more time than non-sustainable options. Participants favored purchasing from familiar retailers due to their knowledge of clothes' fit and quality. Moreover, consumers tend to continue their usual behavior, as noted by one interviewee in the study conducted by Kreuzer et al. (2019, p. 11), who stated that “leaving the comfort zone and change behavior is an effort” (p. 12). In other words, consumers prioritize their own pleasure and well-being over that of the environment, continuing to purchase unsustainable clothes that are more readily available (ElHaffar et al., 2020, p. 13).

In conclusion, a lack of availability in the markets acts as a barrier to sustainable fashion consumption. According to Wiederhold and Martinez (2018, p. 425), consumers may not consider purchasing from sustainable alternatives because they believe that sustainable clothing brands would not cater to their styles. However, one participant in their study admitted that sustainable fashion can be complex, and their understanding of it may not be suitable for the current state of sustainable brands. This suggests that even with more sustainable fashion options available, consumers might still not change their behavior unless motivated by external factors.

#### **2.4.5 Untrust and skepticism**

One of the main barriers preventing consumers from buying sustainable fashion products is the distrust in the sustainability statements made by fashion brands (Blas Riesgo et al., 2023, p. 10). This is reported by, for example, Wiederhold and Martinez (2018, p. 425) who state that their study's participants explained their reluctance to purchase sustainable clothing by expressing skepticism of the claims made by fashion brands. They state that if there is no transparency of the production and sustainability claims are not justified, consumers are uncertain whether businesses behave ethically and suspect that companies only promote themselves as sustainable for marketing purposes. Similar results were also found by Ronda (2024, p. 56), who states that consumers are skeptical of the real motivations of fashion brands that promote sustainability and make sustainable promises. Also, Kreuzer et al. (2019, p. 12) state that the participants in their study mentioned doubt about given information as a barrier to sustainable consumption behavior.

Moreover, consumers find fashion companies' communication about their sustainability actions hard to believe (Diddi et al., 2019, p. 206). According to Blas Riesgo et al. (2023, p. 10), consumers are confused and skeptical about the sustainability information provided by fashion brands, not knowing when brands are sustainable and when they only claim to be sustainable to build an image. Similarly, Wiederhold and Martinez (2018, p. 425) state that the participants in their study were unaware of the supply chain of

production, which made them doubt the sustainability of the clothes in question. Kreuzer et al. (2019, p. 12) report similar results, stating that the lack of transparency of production acts as a barrier to sustainable consumption.

The untrust towards sustainability information and promises of consumers is worsened by greenwashing. According to Blas Riesgo et al. (2023, p. 10), greenwashing is a marketing tactic that uses sustainability to increase sales and enhance the company's reputation without using any credible sustainable measures. It has many negative effects, as reported by Bennetta and Oeppen Hill (2022, p. 422), who state that the participants in their study were confused about what was considered sustainable due to the lack of believable information about sustainability.

## **2.5 Factors closing the attitude-behavior gap**

This subchapter presents the factors that may help to close the attitude-behavior gap. These factors include awareness, knowledge, perceived value, product availability, perceived customer effectiveness, and transparency. Six hypotheses are then presented based on these factors.

### **2.5.1 Awareness of the negative effects of consumption**

Increased awareness and understanding of consumption-related sustainability issues could help consumers align their behavior with their attitudes (Ronda, 2024, p. 57). Due to the increasing awareness of sustainability issues in the past years, consumers have already started to change their purchasing behavior towards more sustainable consumption (Pereira et al., 2021, p. 26). Thus, education on sustainability issues can change consumers' attitudes (Jacobs et al., 2018, p. 1165) and encourage them to act more sustainably (Jasrotia et al., 2023, p. 257). In particular, factual and scientific information about

the impacts and risks of production and consumption on the environment is one of the biggest drivers for sustainable consumption (Saari et al., 2021, p. 8).

Furthermore, as environmental concern of consumers is increasing (Park & Lin, 2020, p. 625), consumers require information on the environmental impacts of available options to translate their environmental concerns into actions (Newton et al., 2015, p. 1979). Therefore, consumers should be educated about the current environmental risks of consumption (Saari et al., 2021, p. 8). Marketers should include this message in their marketing and communion to inform consumers that by buying sustainably, they can answer their environmental concerns and fulfill their responsibilities to protect the environment (Joshi & Rahman, 2019, p. 241). Similarly, Duong (2022, p. 1139) argues that marketing strategies could help to increase consumers' environmental awareness. They state that through communication, consumers become aware of the different sustainable options and the social and personal benefits of sustainable consumption. This could be done by focusing on the "why" of sustainable consumption to help consumers understand how their purchasing decisions affect the environment (Lee et al., 2020, p. 650).

One way to spread awareness and increase knowledge about the negative effects of consumption is through social media. Wiederhold and Martinez (2018, p. 426) suggest that brands should adopt digital communication styles and focus on social media communication as social media was found to be the main source of style inspiration for the participants in their study. Bennetta and Oeppen Hill (2022, p. 424) also found that 42% of consumers' information about sustainability comes from social media. According to Bennetta and Oeppen Hill (2022, p. 424), consumers aged between 16 and 25 receive 57,1% of their information about sustainability from social media, which indicates that the use of social media is particularly important when trying to raise awareness of sustainability issues among young consumers.

Furthermore, the benefits of using social media are diverse. For example, increased information on social media can reinforce incidental learning, which, according to Newton

et al. (2015, p. 1979) can promote sustainable purchasing behavior more than intentional learning. By this, they mean that finding valuable information incidentally can be more convincing than information that has been searched for. Therefore, they state that incidental learning can promote sustainable consumption. Similar results are found by Lee et al. (2020, p. 650), who state that consumers are more likely to choose sustainable clothing if they have been exposed to environmental communication prior to purchase.

In the context of social media, social media influencers and celebrities have an important role in raising awareness. According to Ronda (2024, pp. 57-58), social media influencers, retailers and educators should collaborate to raise awareness of the negative environmental and social impacts of fast fashion. They state that social media and digital content can be used to effectively reach a wide audience. Similarly, Bennetta and Oeppen Hill (2022, pp. 424, 426) report that using influencers or celebrities to promote sustainable spending or reduced consumption could be an effective tool to raise awareness of sustainability issues. Likewise, Chaturvedi et al. (2022, pp. 626, 635) suggest that celebrities can successfully bridge the attitude-behavior gap by inspiring individuals to act more sustainably and provoking institutional change in society. They state that if consumers are repeatedly exposed to environmental issues on social media, societal norms may begin to change.

In conclusion, companies need to increase consumer awareness of the negative impacts of consumption to change the current fast fashion production and consumption model. One way to do this is by launching educational campaigns to raise awareness and educate consumers about the use of water and energy in production (Atik & Ozdamar Ertekin, 2023, p. 10). Based on the above discussion, the following hypothesis is proposed:

*H1 – Awareness of the negative effects of consumption has a positive effect on sustainable fashion consumption.*

### **2.5.2 Sustainable fashion knowledge**

As previously mentioned, consumers do not know what sustainability means and information about sustainable practices is not easily available, which hinders their sustainable behavior. In turn, awareness of sustainable practices enables consumers to make informed purchasing decisions (Bennetta & Oeppen Hill, 2022, p. 425). Consumers also want to be educated about sustainability by fashion brands (Pereira et al., 2021, p. 26) and they want to know if they are sustainable consumers when making purchasing decisions (Bennetta & Oeppen Hill, 2022, p. 424). Therefore, there is a need to increase knowledge about how to consume sustainably in order to close the attitude-behavior gap in the industry.

Consumers are increasingly aware of sustainability issues, which increases the pressure on companies to act more sustainably (Teufer & Grabner-Kräuter, 2023, p. 770) and to communicate this better to consumers. Consumers feel that the lack of knowledge is not their fault, but that fashion brands are responsible for providing consumers with sufficient information (Wiederhold & Martinez, 2018, p. 426). Similarly, Sheth and Parvatiyar (2021, p. 156) argue that companies are responsible for redirecting consumers' wants and needs towards sustainable consumption. They argue that since companies have successfully increased consumption levels over the past decades, they have the power to redirect consumption towards more sustainable practices. This can be achieved by developing marketing and advertising strategies to attract consumers to sustainable products (Duong, 2022, p. 1139) and by increasing their knowledge.

In addition, companies should educate consumers about how their purchasing decisions affect the environment and the types of benefits sustainable products offer (Brandão & Costa, 2021, p. 765). Therefore, the environmental impact of a product should be explained to consumers using methods such as carbon footprint calculation (Kaner & Baruh, 2022, p. 388). Providing consumers with measurable information could help them visualize the impact of their consumption on the environment (Kreuzer et al., 2019, p. 13). With comparable information, consumers could see the negative impacts of their

current consumption and the benefits that sustainable consumption would provide. It could also help consumers understand how environmentally damaging fast fashion clothing really is (Diddi et al., 2019, p. 207), and encourage them to search for more sustainable options.

Furthermore, it is important that consumers not only know how to consume sustainable fashion but also how to consume fashion sustainably. Consumers usually only consider sustainability during the purchase phase but forget that the use and disposal phases are also important factors in sustainable consumption (Kreuzer et al., 2019, p. 14). In a sense, the use stage is the most important part of sustainable fashion consumption, as the idea is to intensify and increase the use of existing clothing (Vesterinen & Syrjälä (2022, p. 10). Therefore, consumers should change their perceptions about their current consumption patterns and “seek pleasure in clothing use rather than clothing acquisition” (Freudenreich & Schaltegger, 2020, p. 3). Confirming this, Vesterinen and Syrjälä (2022, p. 9) argue that clothes that get used a lot are the most sustainable clothes.

However, only high-quality clothing can withstand repeated use (Freudenreich & Schaltegger, 2020, p. 2), which is why consumers should be educated about what is good quality and what is not. For example, fast fashion brands tend to produce low-quality clothes that are not designed to last to encourage further consumption (Mizrachi & Tal, 2022, p. 1160), but consumers may not be aware of this. Therefore, brands should provide information on technical details about the product’s materials and production methods in a way that is understandable to the consumer (Kaner & Baruh, 2022, p. 388). Increasing knowledge about the materials used in clothing is crucial, as consumers lack knowledge about which materials are sustainable (Papasolomou et al., 2023, p. 199) or are unaware of the different environmental impacts of different materials or resources (Bennetta & Oeppen Hill, 2022, p. 421).

In addition, consumers should be educated on how to make clothes last longer, as extending the life cycle of existing clothes is one of the most important sustainable actions

an individual can take (Mizrachi & Tal, 2022, p. 1159). Therefore, companies should provide consumers with post-purchase product care information on washing and ironing methods (Kaner & Baruh, 2022, p. 389). Clothing care information is crucial to communicate to reduce the spread of microplastics and increase the useful life of clothing (Mizrachi & Tal, 2022, p. 1160). Further, one of the main reasons why consumers participate in the throwaway culture of clothes is that they do not know how to repair them (Diddi et al., 2019, p. 207). According to Bennetta and Oeppen Hill (2022, p. 425), most consumers would be willing to extend the useful life of their clothes if they knew how to sew.

In conclusion, consumers should have more knowledge about sustainability to facilitate sustainable fashion consumption. Companies should promote sustainable clothing by educating consumers about the environmental impact of their choices so that they know the benefits of sustainable consumption (Brandão & Costa, 2021, p. 765). These benefits should be supported by scientific evidence (Cao Minh & Nguyen Thi Quynh, 2024, p. 6). Based on the above discussion, the following hypothesis is proposed:

*H2 – Sustainable fashion knowledge has a positive effect on sustainable fashion consumption.*

### **2.5.3 Perceived value of sustainable clothing**

Another factor that could bridge the attitude-behavior gap in sustainable fashion consumption is overcoming the barrier of high prices. This can be done by increasing the perceived value of clothing to justify the higher prices. The perceived value of clothing refers to the perceived relationship between cost and benefit (Brandão & Costa, 2021, p. 764). In order for consumers to be willing to pay higher prices, they need to feel that the benefits of the clothes they buy outweigh the economic costs (Legere & Kang, 2020, p. 10). Therefore, the positive attributes of sustainable fashion should be more clearly highlighted to consumers to justify why the clothes are more expensive than fast fashion.

Consumers should be made aware that sustainable consumption improves the quality of life rather than of sacrificing anything (Teufer & Grabner-Kräuter, 2023, p. 771).

One approach to increasing the perceived value of clothing is to communicate the benefits of sustainable clothing. Sustainable clothes are more expensive than fast-fashion clothes because they are more expensive to produce, for example, through the use of high-tech machinery, the use of sustainable energy sources and higher labor costs (Öndoğan et al., 2022, p. 406). These sustainable practices increase the value of the apparel by providing environmental benefits (Brandão & Costa, 2021, p. 765). Thus, transparent communication on these issues at all stages of the product life cycle could make consumers more willing to pay the higher price (Blas Riesgo et al., 2023, p. 10). On the contrary, the significantly lower prices of fast fashion are caused by unethical factors in production (Bennetta & Oeppen Hill, 2022, p. 425). Consumers should also be educated about how much more harmful fast fashion is to the environment (Diddi et al., 2019, p. 207) to help them understand the reasons behind the price differences.

Moreover, the perceived value of clothing could be increased by communicating features such as functionality, which can make sustainable clothing more cost-effective in the long run (Legere & Kang, 2020, p. 10). Especially durability is something that consumers value so highly that it could act as a barrier to the consumption of sustainable clothing, as some consumers do not consider sustainable clothing to be durable (Jacobs et al., 2018, p. 1165). However, the quality of the clothes should match the higher price, and more expensive sustainable clothes should be well-made and durable (Diddi et al., 2019, p. 204). Thus, sustainable fashion should be durable and repairable, designed to last a long time and have a timeless design, so that consumers are willing to use them for long (Freudenreich & Schaltegger, 2020, p. 6). They should also be aesthetically pleasing (Brandão & Costa, 2021, p. 764).

The higher perceived value of clothing also increases its life cycle, which could also be communicated to justify the higher prices. When making a purchase, consumers should

consider the cost per wear of each item (Legere & Kang, 2020, p. 10), which could help them think of each item as an investment (Blas Riesgo et al., 2023, p. 10). This could help consumers understand that investing in fewer, higher quality items that last longer can be more cost-effective than buying disposable fast fashion (Diddi et al., 2019, p. 204). Investing more money in each item could also change consumers' perceptions that clothes are easily disposable items and facilitate longer relationships with clothes (Atik & Ozdamar Ertekin, 2023, p. 12). When consumers have paid more for their clothes, they feel more emotionally attached to their clothes (Diddi et al., 2019, p. 204) and are more likely repair them to preserve them as long as possible (Blas Riesgo et al., 2023, p. 10).

Lastly, companies should use sustainability as a value-adding factor instead of a value detractor (Stål & Jansson, 2017, p. 555). Thus, companies should provide information and additional services that help prolong the useful life and justify the higher prices of clothing. Companies should communicate how to make the clothes last by providing product care guidelines, such as how to wash and iron the clothes (Kaner & Baruh, 2022, p. 389). In addition to communication, companies could help consumers with repairs to prolong the use of a product, for example, by providing online guidance on how to repair their clothes (Freudenreich & Schaltegger, 2020, p. 7) or offering repair services (Diddi et al., 2019, p. 207). Based on the discussion above, the following hypothesis is presented:

*H3 – Perceived value of sustainable clothing has a positive effect on sustainable fashion consumption.*

#### **2.5.4 Availability of sustainable clothing**

One key factor in increasing the sales of sustainable clothing would be to increase the availability of sustainable retail stores (Jacobs et al., 2018, p. 1165). Currently, the lack of available options has been reported as a major barrier for consumers (Nguyen et al, 2018, p. 126). Increasing the availability of sustainable fashion could help motivate consumers

to bridge their attitude-behavior gap or attract entirely new consumers (Nguyen et al., 2018, p. 126). Having sustainable products readily available has been reported to strengthen the relationship between positive attitudes and actual behavior (Nguyen et al., 2018, p. 126), thus, bridging the attitude-behavior gap. When consumers feel that sustainable products are more readily available, they feel that it is easier to consume sustainable products (Brandão & Costa, 2021, p. 764). Therefore, increasing availability could help increase consumers' motivation to purchase sustainable clothing (Nguyen et al., 2018, p. 126) and could even make consumers willing to pay more for the clothing (Ronda, 2024, p. 56).

There are several ways to increase the availability of sustainable products. For example, locating sustainable clothing stores near traditional fashion stores (Brandão & Costa, 2021, p. 766) and where consumers currently shop could make it easier for consumers to consider buying sustainable clothing (Wiederhold & Martinez, 2018, p. 426). Established retailers could also form alliances with sustainable clothing brands to include them in the selection (Jacobs et al., 2018, p. 1165). In addition, the online presence of brands should be strengthened to provide information on the different sustainable options available and where to find them (Brandão & Costa, 2021, p. 766).

Furthermore, sustainable clothing available in markets should be attractive to consumers in terms of style and fit (Wiederhold & Martinez, 2018, p. 426) and other quality attributes such as durability (Jacobs et al., 2018, p. 1165). To increase consumers' knowledge of available options, sustainable fashion companies should promote the quality and desirability of their products in their marketing strategies (Ronda, 2024, p. 57). As mentioned before, a barrier to sustainable consumption is that consumers have a negative image of sustainable fashion brands and feel that they do not meet their needs. To counter this, companies should develop marketing strategies that focus on the positive attributes of sustainable clothing, which could help consumers invest in sustainable fashion (Diddi et al., 2019, p. 207). Attribute-focused marketing strategies have

been found to significantly increase consumers' intention to purchase sustainable fashion (Brandão & Costa, 2021, p. 765).

In conclusion, sustainable clothing should be more easily available to increase sustainable fashion consumption. Sustainable brands should be more easily available in stores, and consumers should be educated on where to find sustainable clothing (Jacobs et al., 2018, p. 1165). In addition, the available options should have positive attributes in terms of style, fit and quality so that consumers have a positive perception of the clothes and are more likely to purchase them (Brandão & Costa, 2021, p. 765). Based on the above discussion, the following hypothesis is presented:

*H4 – Availability of sustainable clothing has a positive effect on sustainable fashion consumption.*

### **2.5.5 Perceived customer effectiveness**

Perceived consumer effectiveness refers to the extent to which consumers believe that their actions reduce environmental impacts and influence environmental issues (Blas Riesgo et al., 2023, p. 7). It is one of the most important factors influencing sustainable purchasing behavior (Joshi & Rahman, 2019, p. 239). Therefore, consumers need to see the environmental crisis as understandable and should feel that they can contribute to solving it through their pro-environmental actions (Chaturvedi et al., 2022, p. 636).

Furthermore, the role of perceived customer effectiveness in closing the attitude-behavior gap has been reported by many researchers. For example, Cao Minh and Nguyen Thi Quynh (2024, p. 5) found evidence to support the relationship between perceived customer effectiveness and sustainable consumption, stating that when consumers feel that their behavior has an impact on the environment, they are more likely to behave in a sustainable manner. Similarly, Joshi and Rahman (2019, p. 241) also found corresponding results and argue that consumers should be made more aware of the benefits of sustainable consumption and the impacts their consumption on the environment and

society. Moreover, Nguyen et al. (2018, p. 125) also report that when consumers believe that using sustainable products has a positive effect on the environment, they are more likely to act sustainably.

However, one of the core barriers to sustainable fashion consumption for consumers is the feeling of powerlessness to make a difference with their purchasing choices (Wiederhold & Martinez, 2018, p. 426). This idea may stem from the fact that current social norms and mass behavior are not sustainable (Teufer & Grabner-Kräuter, 2023, p. 768). However, Parvatiyar and Sheth (2023, pp. 796-797) argue that individual choices do matter and that individual consumer behavior is needed to achieve a bigger change in society. They note that companies change their production according to the demand shifts caused by consumer preferences and desires, and if individuals do not indicate a change in preferences through their purchasing behavior, companies will continue as before. Thus, companies need to take action to change the perception of consumers, and for example, effective communication through marketing can increase perceived consumer effectiveness (Joshi & Rahman, 2019, p. 241). Based on the discussion above, the following hypothesis is presented:

*H5 – Perceived customer effectiveness has a positive effect on sustainable fashion consumption.*

### **2.5.6 Trust in sustainability claims**

One key strategy for bridging the attitude-behavior gap is to increase transparency on sustainable practices to build consumer trust and strengthen their relationship with the brand (Ronda, 2024, p. 57). One of the main barriers to sustainable consumption is the lack of trust in companies' communication of their sustainability claims (Blas Riesgo et al., 2023, p. 10). Therefore, companies should communicate more transparently about their sustainable actions (Jacobs et al., 2018, p. 1165) to reduce skepticism and improve consumer attitudes towards sustainability (Brandão & Costa, 2021, p. 766). Increased

transparency would both help consumers make informed decisions and force fashion brands to be accountable for their practices (Ronda, 2024, p. 57).

Furthermore, companies should provide product-level information on environmental impacts (Diddi et al., 2019, p. 207) so that consumers can take this into account when making purchase decisions (Papasolomou et al., 2023, p. 202). The information should include all information from materials to production (Blas Riesgo et al., 2023, p. 10). This information should be provided using labels such as carbon footprint or water pollution (Kaner & Baruh, 2022, p. 388), which would also help reduce consumer skepticism about sustainability claims (Diddi et al., 2019, p. 207). These certifications and labels can serve as trustworthy sustainability credentials for consumers (Ronda, 2024, p. 57).

Furthermore, transparency should include information about the entire supply chain (Ronda, 2024, p. 57), which is why social sustainability issues should also be included in the communication. According to Kaner and Baruh (2022, p. 388), this communication should include all aspects of the social, moral, economic, and medical impact on human life of all workers and stakeholders directly or indirectly affected by operations. The importance of these social issues to consumers is also reported by Papasolomou et al. (2023, p. 200) who state that participants in their study had strong negative feelings about unethical social practices, such as unethical labor relations and the use of child labor. Respondents were more concerned about these social issues than the negative environmental impact of the industry. Thus, the socio-ecological benefits of sustainable products should be communicated to consumers (Jacobs et al., 2018, p. 1165).

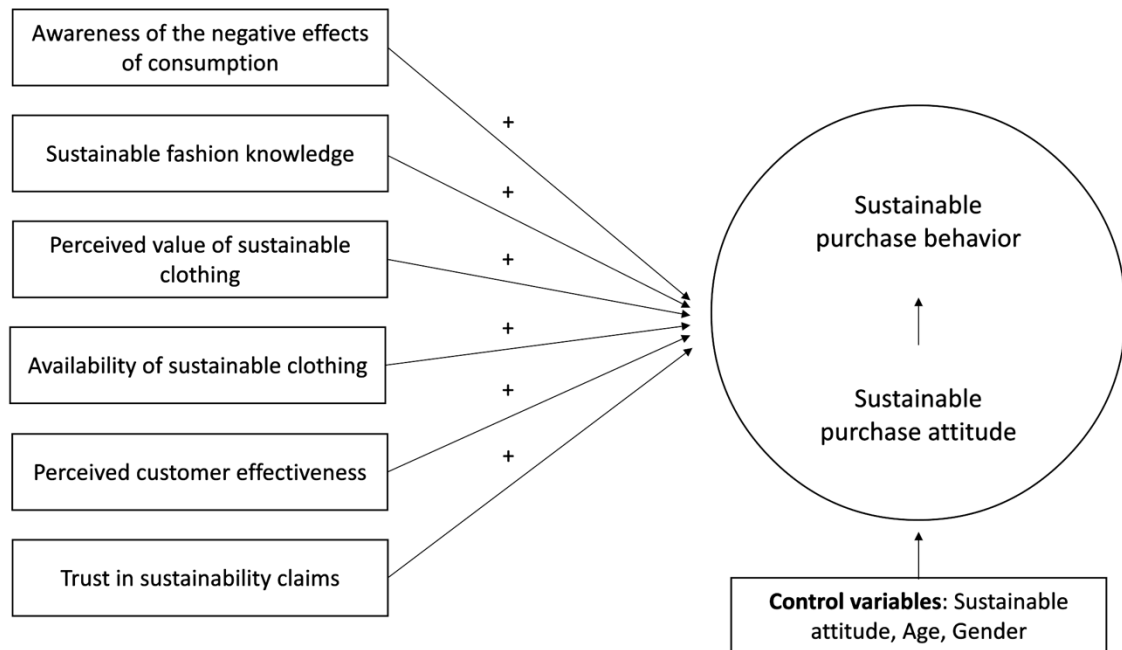
In conclusion, consumers want to be better informed about sustainability issues through trustworthy labels and clear classifications (Wiederhold & Martinez, 2018, p. 426). It is not enough for companies to use sustainability as a marketing strategy, but they need to increase transparency throughout their supply chain (Atik & Ozdamar Ertekin, 2023, p. 12). Transparency is one of the most important factors in overcoming the barrier of consumers' skepticism and increasing positive attitudes towards sustainable consumption

(Brandão & Costa, 2021, p. 766). Based on the above discussion, the following hypothesis is presented:

*H6 – Trust in sustainability claims has a positive effect on sustainable fashion consumption.*

## 2.6 Model of the study

The developed model for this study is presented in below Figure 6. The model depicts the important role of six factors in closing the consumers' attitude-behavior gap for sustainable consumption in the fashion industry. In addition, the control variables are also presented.



**Figure 6.** Model of the study.

### **3 Research methodology**

This chapter presents the research methodology and explains why a particular research method was chosen. It also introduces data sampling, questionnaire design, operationalization of variables, data gathering process, responses, and data analysis methods. Finally, the credibility of the research is discussed by examining the reliability and validity of this research.

#### **3.1 Research approach**

This research was conducted using the *deductive approach*. According to Saunders et al. (2007, pp. 117-118), in the deductive approach research is conducted by developing hypotheses and subjecting them to tests. These hypotheses are propositions about the relationship between variables. These variables are operationalized using different measures so that the concepts can be measured during data collection. Thus, in research that follows the deductive approach, hypotheses provide a theoretical framework for data collection based on previous literature and research.

Furthermore, the deductive approach was chosen for several reasons. Firstly, this study followed a structured model to test the hypotheses in order to examine the relationship between the variables, which is one of the core features of deductive studies (Saunders et al., 2007, p. 117). Secondly, the aim of this research was to examine the relationship between the variables, which are the different factors that help to close the attitude-behavior gap and promote sustainable fashion consumption. According to Saunders et al. (2007, p. 117), deductive research is characterized as research that investigates a causal relationship between variables. Furthermore, the aim of deductive research studies is to provide generalizable data (Saunders et al., 2007, p. 118), which was the aim of this study.

### 3.2 Quantitative research method

This study was conducted as a quantitative study. Quantitative research provides numerical data that is analyzed and interpreted using quantitative analysis techniques (Saunders, 2007, pp. 145, 406). There are several reasons for using a quantitative research method in this study. Firstly, most deductive studies use quantitative data collection methods (Saunders et al., 2007, p. 120). Secondly, the constructs of this study are easily operationalizable which justifies the need to conduct a quantitative study. Thirdly, quantitative methodology is the most used methodology in the field of sustainable fashion consumer behavior (Busalim et al., 2022, p. 1812) and in understanding and closing the attitude-behavior gap (Elhaffar et al., 2020). Despite the number of quantitative studies in these areas, more research was needed from a quantitative perspective to ensure broad generalization of findings.

### 3.3 Data collection

The survey strategy was the chosen method of data collection for this study. According to Saunders et al. (2007, p. 138), the survey strategy is often used in deductive studies as it is an affordable method that allows for the collection of quantitative data. The data was collected using a *questionnaire*, which is often used in research that explores and explains the relationship between variables (Saunders et al., 2007, p. 356). Questionnaires have been a successful method of data collection in previous studies (e.g. Mandarić et al., 2022; Blas Riesgo et al., 2023) in this field. Surveys are also the most used method of data collection in previous literature on consumer behavior (Busalim et al., 2022, p. 1812).

Furthermore, the questionnaire for this thesis was administered electronically (Saunders et al., 2007, p. 356). The survey was created using Webropol as a platform to collect responses online. An online questionnaire was chosen as the data collection method due to the wide geographical spread of the population. The aim of the study was to collect

comprehensive data from Finnish consumers, and an online questionnaire made it possible to collect data from participants located in different parts of the country.

### **3.3.1 Data sampling**

In order to collect relevant data from the population, some sampling methods had to be used, as the population for this study was all Finnish consumers. According to Saunders et al. (2007, pp. 204-205), a population is the total number of cases from which a sample is taken. A sample provides generalizable data from the population without having to collect data from the whole population. As it would have been impossible to collect data from the entire population of Finland, a sample group was created.

Self-selection sampling was used as the data sampling method in this study. According to Saunders et al. (2007, pp. 233-234), self-selection sampling occurs when individuals can choose to participate in research. In these cases, the need for respondents is advertised, for example on the Internet, and individuals can participate voluntarily if they wish. In this study, the author published the link to the questionnaire on two social media platforms, LinkedIn and Instagram, where it was open to anyone who wanted to respond. In addition, the link to the questionnaire was published on the author's workplace intranet, where it was open to all members of the company to respond. Finally, to ensure a sufficient number of responses, respondents were also encouraged to forward the link to the questionnaire. In other words, the author contacted potential respondents via email, social networks, and other personal contacts, and asked them to participate in the study. The author also asked her contacts to share the survey with their Finnish acquaintances in order to obtain a larger sample size.

### 3.3.2 Questionnaire development

The questionnaire was carefully designed to ensure the reliability and validity of the data. The questionnaire was divided into four different sections to make it less intimidating for respondents and to improve the flow. The first page of the questionnaire contained a cover letter to explain the purpose of the survey to the participants (Saunders et al., 2007, p. 382). It included the introduction to the questionnaire, a brief explanation of its purpose, a statement that responses would be anonymous, the expected response time, and the author's contact information. The second page contained questions about the participant's background, and the third page contained questions related to the participants' attitudes and behaviors regarding their sustainable and clothing consumption. The last page concluded the questionnaire by thanking the participant for their time.

In terms of question development, individual questions were created by adopting questions used in prior studies, modifying questions used in other studies, and in a few cases, the author developed new questions. Questionnaire questions can be closed questions, where the respondent is given limited options to choose from, or open questions, where the participant is free to answer the question how they want (Saunders et al., 2007, p. 368). In this study, all questions were closed questions. However, in a small number of questions regarding participant characteristics, one of the options was to answer "other" and then fill in the desired answer.

Furthermore, the types of questions in the questionnaire varied according to the nature of the question. All questions that collected demographic information about the participants were either list questions or category questions. List questions allow participants to choose their answer from a list of different options (Saunders et al., 2007, p. 369). List questions were used in this study to collect data such as employment status, education and gender of the participants. Category questions have different categories for the respondent to choose from (Saunders et al., 2007, p. 370). These were used to collect data on the participant's age, monthly income and frequency of clothing' purchases.

Furthermore, all of the questions used to collect data for the dependent and independent variables of the study were rating questions. Rating questions usually use a 5-point Likert-style rating scale, where the respondent is asked how much they agree or disagree with a given statement on a scale of one to five (Saunders et al., 2007, p. 372). In this study, the scale was as follows: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree.

Finally, the questionnaire was pilot-tested with five participants before to it being published. Pilot testing a questionnaire is important to ensure the validity and reliability of the data (Saunders et al., 2007, p. 386). During this pilot testing phase, respondents were asked to comment on the formatting and wording of the questions, as well as to report on how long it took them to complete the survey. The questionnaire was then improved on the basis of this feedback before being published.

### 3.3.3 Operationalization of variables

In order to analyze the data collected through the questionnaire, the variables had to be operationalized. The measures for the dependent variable sustainable purchase behavior and the independent variables sustainable attitude, awareness, knowledge, perceived value, availability, customer effectiveness and transparency were constructed using previous studies. The measures of the variables are presented in Table 3.

**Table 3.** Operationalization of variables

Constructs	Questions	Item source(s)
Sustainable purchase attitude	a) I think the fashion industry should change to be more sustainable.	Nguyen et al. (2018)
	b) I am concerned about environmental pollution caused by fashion consumption.	
	c) I feel good when I buy from sustainable fashion brands.	Papasolomou et al. (2023)
	d) I feel guilty when I purchase fast fashion	Ronda (2024)

Constructs	Questions	Item source(s)
	e) I am willing to pay a higher price for clothing that has been produced in a sustainable manner.	
Sustainable purchase behavior	f) While buying clothes, I look at ingredients to see if it contains things that are environmentally damaging. g) If I have a choice between two clothes, I pick the one that is made more sustainably.	Duong (2022)
	h) I avoid buying clothes from companies whose actions damage the environment	Newton et al. (2015)
	i) I buy sustainable clothes even if they are more expensive.	Duong (2022)
	j) I prefer to buy clothes that I can wear for a long time instead of trendy clothes that go out of style quickly.	Adapted from Diddi et al. (2019)
	k) I always buy sustainable clothes.	Created by the author of this study.
Awareness of the negative effects of consumption	l) I am aware of the negative environmental and social impacts of fashion consumption.	Adapted from Papasolomou et al. (2023)
	m) I have a lot of information about the adverse effects of fast fashion in the environment and society n) I know how my fashion purchase choices impact the environment and society.	Adapted from Ronda (2024)
Sustainable fashion knowledge	o) I know what sustainable fashion is.	Created by the author of this study.
	p) I have a lot of knowledge about the materials used in fashion and their impact on the environment.	Ronda (2024)
Perceived value of sustainable clothing	q) I think it is fair that sustainable clothing is more expensive to cover higher production costs.	Ronda (2024)
	r) Sustainable fashion is good value for the money.	Brandão & Costa (2021)
	s) Sustainable fashion is durable and high quality.	Adapted from Brandão & Costa (2021)
Availability of sustainable clothing	t) I know where I can buy sustainable clothing. u) Sustainable clothing is easy to find.	Brandão and Costa (2021)

Constructs	Questions	Item source(s)
Perceived customer effectiveness	v) I believe that each consumer's behavior can have a positive impact on society and environment. w) I believe that sustainable clothing can help in dealing with sustainability issues. x) I believe my behavior of buying sustainable clothes can have a positive impact on the environment.	Blas Riesgo et al. (2023)
Trust in sustainability claims	y) I trust fashion companies when they say they are sustainable. z) When companies are transparent about their sustainability, I trust them.	Adapted from Ronda (2024)

### 3.3.4 Data gathering process and responses

After a pilot test of the questionnaire on the 19<sup>th</sup> of March, the online questionnaire was published on Webropol on the 20<sup>th</sup> of March 2024. During the first day, the link to the questionnaire was shared on the author's LinkedIn page and Instagram story and sent to various friends, family members and colleagues. On the first day, 71 respondents completed the survey. On the 27<sup>th</sup> of March, the link was posted on the author's workplace intranet, and 11 more people completed the questionnaire. After two weeks of being open, on 3<sup>rd</sup> of April the questionnaire had received 112 responses. The author decided to extend the questionnaire deadline by one week. On the 8<sup>th</sup> of April, the author published the link on Instagram stories for the second time, after which the questionnaire received 31 more responses. Finally, the questionnaire was kept open until the 14<sup>th</sup> of April, at which point it had received a total of 165 responses. Out of 165 responses, 9 responses were removed because they were filled by non-Finnish consumers. Hence, the final sample of this study was 156 responses.

### **3.3.5 Method of data analysis**

As mentioned above, the data for this study is quantitative and was collected using a questionnaire. In order to make the collected quantitative data usable, it needs to be analyzed (Saunders et al., 2007, p. 206). To analyze the data, it was first coded into numerical data to be analyzed as nominal data (Saunders et al., 2007, p. 409). The data analysis was done using SPSS software.

Further, a number of statistical tests were carried out to analyze the data. Firstly, a confirmatory factor analysis was carried out on the measures used. Then a correlation analysis was carried out to determine if there was a multi-correlation between the variables. Finally, a multiple regression analysis was conducted. Regression analysis is used “to assess the strength of a relationship between one dependent and two or more independent variables” (Saunders et al., 2007, p. 442).

## **3.4 Research credibility**

To ensure the credibility of the research, the validity and reliability of the data must be assessed. For the research to be credible when collecting data using questionnaires, respondents must understand the questions as intended by the author, and the author must understand the answers as intended by the respondent (Saunders et al., 2007, pp. 365-366). This subchapter discusses the validity and reliability of this study.

### **3.4.1 Validity**

Validity refers to the extent to which the results of the study are what they were intended to be (Saunders et al., 2007, p. 150). Construct validity includes the questions in the questionnaire and how well they reflect the variables they are intended to reflect (Saunders et al., 2007, p. 367). In this study, all the questions used in the questionnaire were

constructed using an academic source and most of them had been used in similar studies previously.

The validity of this study was statistically tested. According to Saunders et al. (2007, p. 366), criterion-related validity is often tested using statistical analyses such as correlation analysis. Correlation analysis was carried out between all variables and no problem of multicollinearity was found between any of the variables.

### **3.4.2 Reliability**

Reliability is concerned with the consistency of findings when repeated using the same data collection techniques and analysis (Saunders et al., 2007, p. 149). Saunders et al. (2007, pp. 149-150) describe that there are four main threats to the reliability of a study: participant error, participant bias, observer error and observer bias. Participant error includes contamination of participant responses. This means that participants may change their answer after talking to other participants or in order to answer in the most desirable way. This should not be an issue in this study, as participants completed the questionnaire individually and were clearly informed that the answers were anonymous.

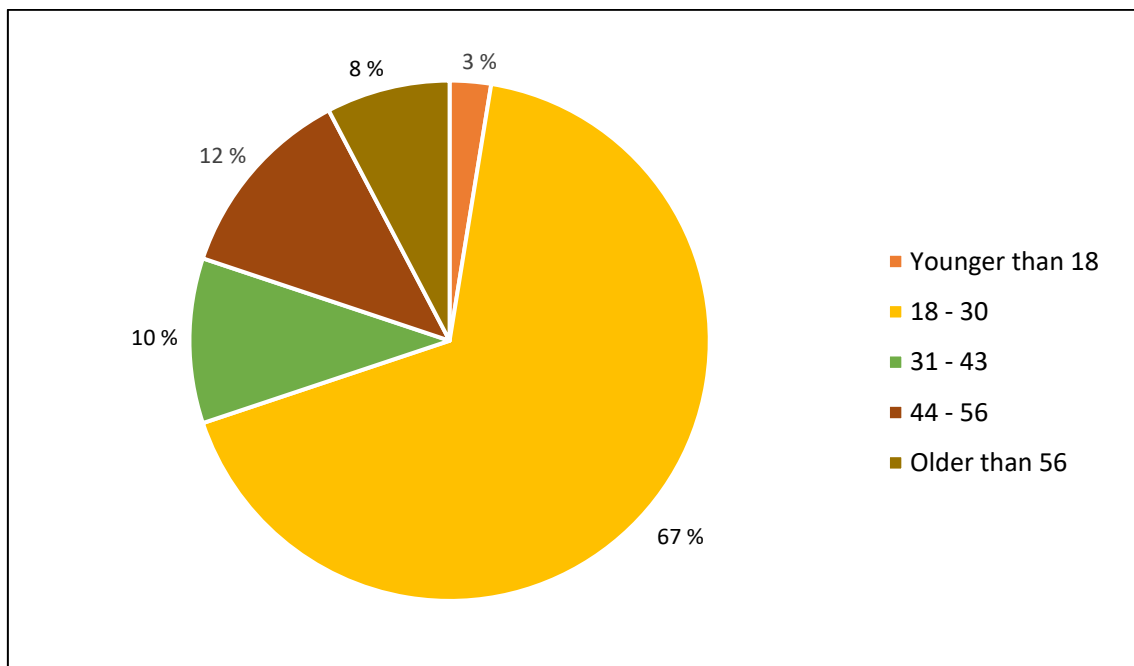
To ensure the reliability of the data collected in this study, the internal consistency of the responses was statistically measured. This measurement was done using Cronbach's alpha, which measures the consistency of the participant's answers between questions measuring the same variable (Saunders et al., 2007, p. 367). All variables scored above 0.70, indicating that the variables were reliable to have been used in the study.

## 4 Empirical analysis and findings

This chapter presents the empirical analysis of the collected data and explains the findings of this study. First, the demographic characteristics of the respondents are presented in the first subchapter. Next, the confirmatory factor analysis is presented. Finally, the chapter concludes with the data analysis, which was done using correlation and multiple regression tests.

### 4.1 Demographic characteristics

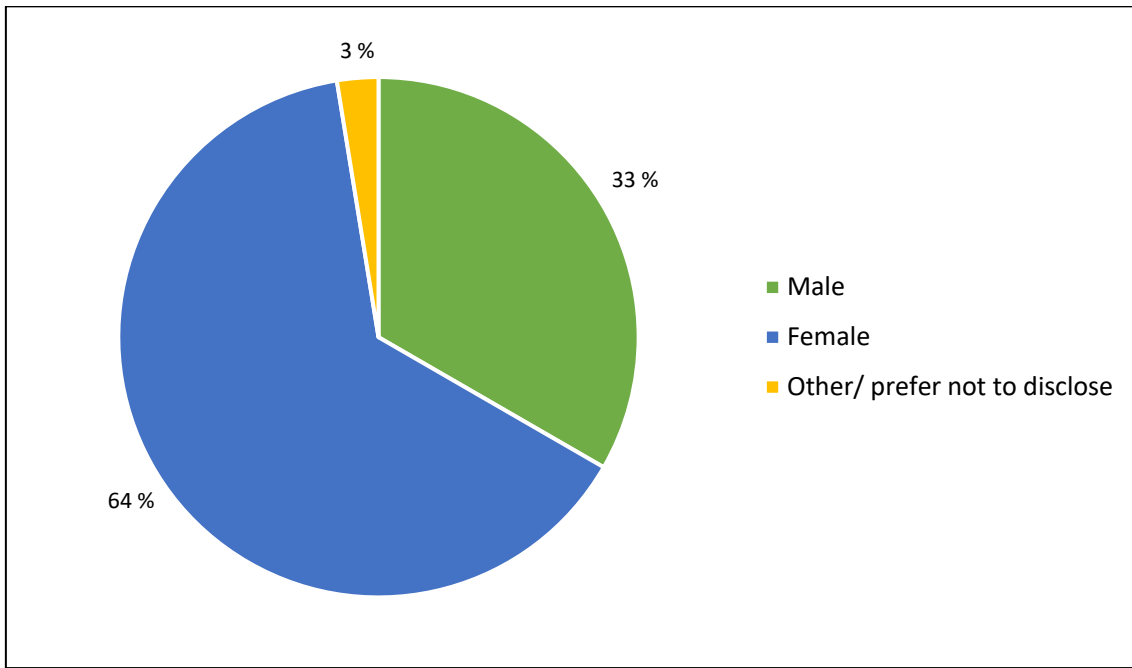
The total number of answers was 165. After reviewing the responses, 9 non-Finnish respondents were excluded from the data set as they did not align with the intended sample of Finnish individuals. Therefore, the final data sample set of this study was 156 respondents (n=156).



**Figure 7.** The age distribution of respondents.

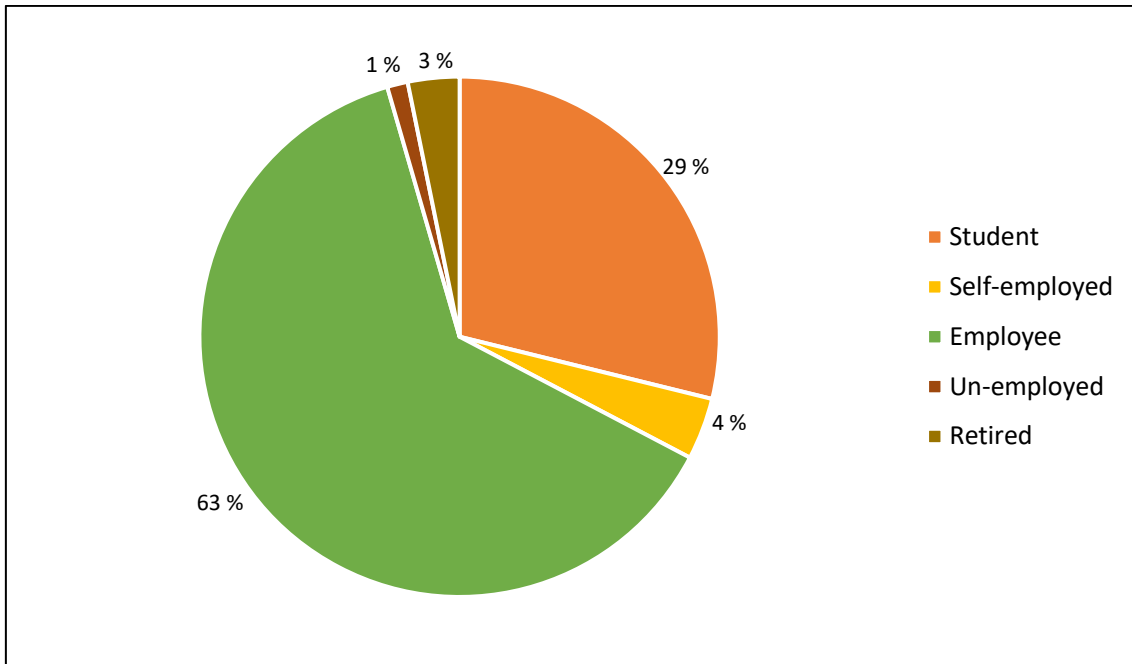
The age distribution of the respondents is presented in Figure 7. The majority of respondents were between 18 and 30 years old (n=105). The rest of the participants were

between 31 and 43 years old (n=16), between 44 and 56 years old (n=19) or older than 56 years old (n=12). The smallest group of participants was individuals under 18 years old (n=4).



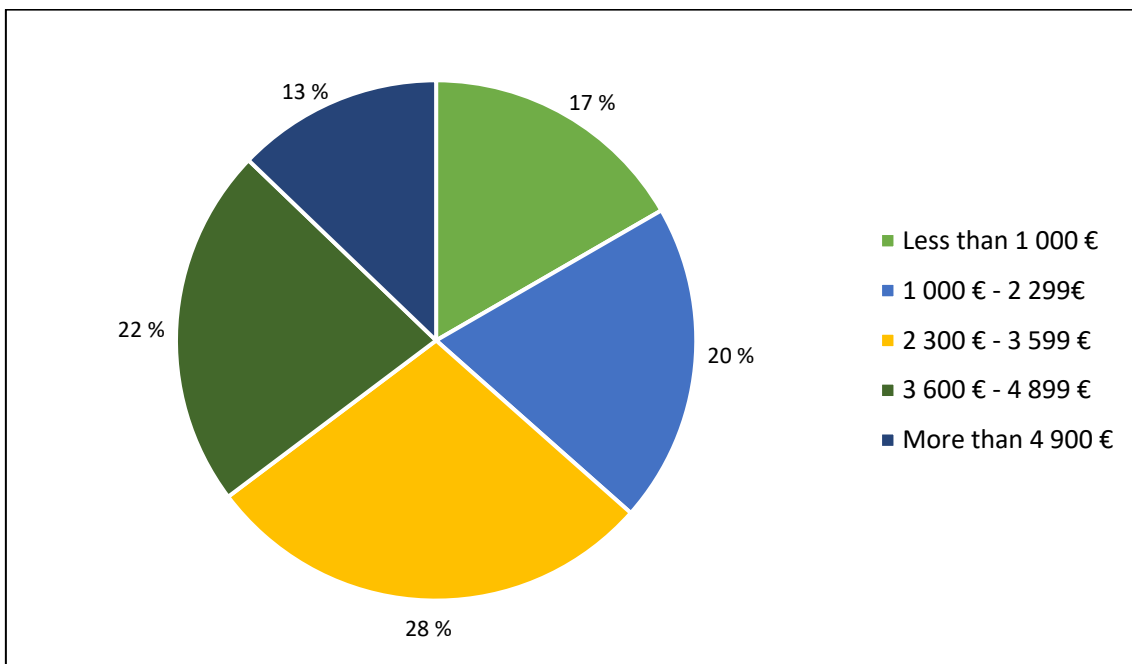
**Figure 8.** The gender distribution of respondents.

The gender distribution is presented in Figure 8. Most of the respondents were female (n=100). The rest were male (n=52) or did not identify with either gender or wished not to disclose their gender (n=4).



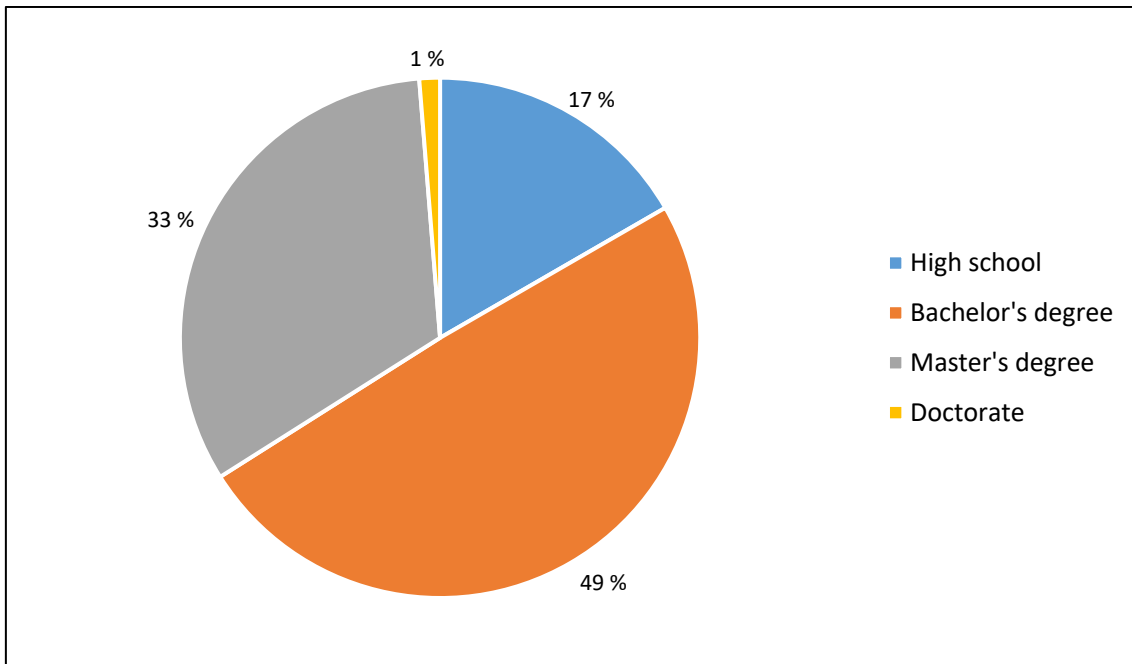
**Figure 9.** The employment status of respondents.

The employment status of the respondents is presented in Figure 9. Most of the respondents were employees ( $n=95$ ). The rest of the respondents were students ( $n=45$ ), self-employed ( $n=6$ ), retired ( $n=5$ ) and unemployed ( $n=2$ ).



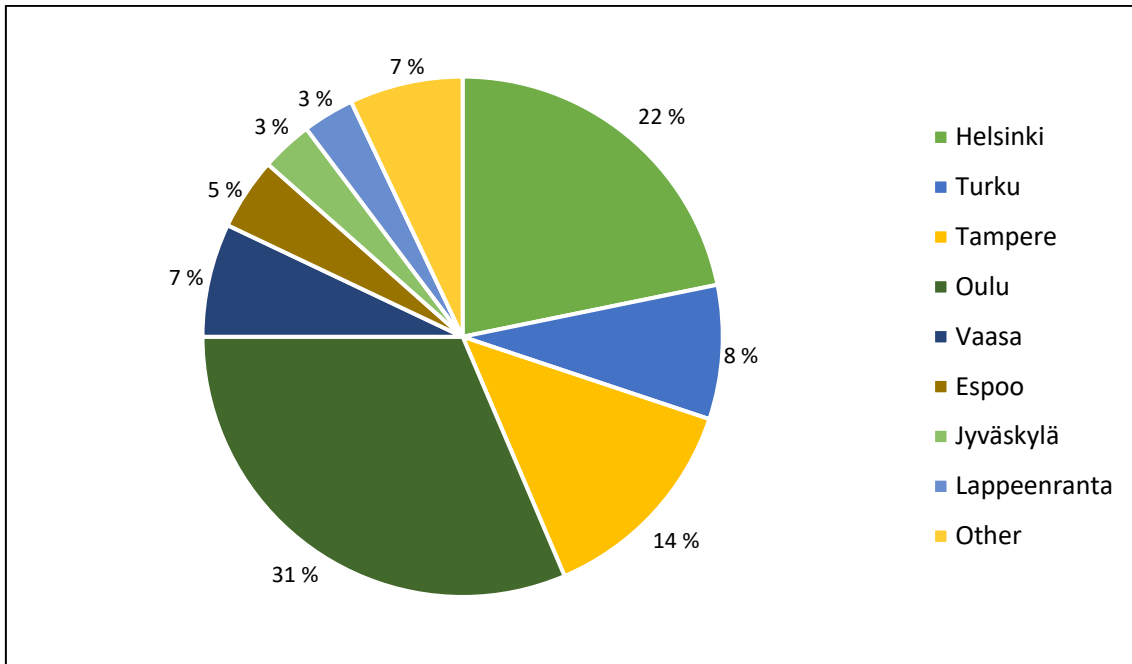
**Figure 10.** The monthly income of respondents.

The monthly income of the respondents is presented in Figure 10. The majority of the respondents' monthly income was either 2 300 € to 3 599 € (n=44) or 3 600 € to 4 899 € (n=35). The rest reported that their monthly income was either less than 1 000 € (n=26), 1 000 € to 2 299 € (n=31) or more than 4 900 € (n=20).



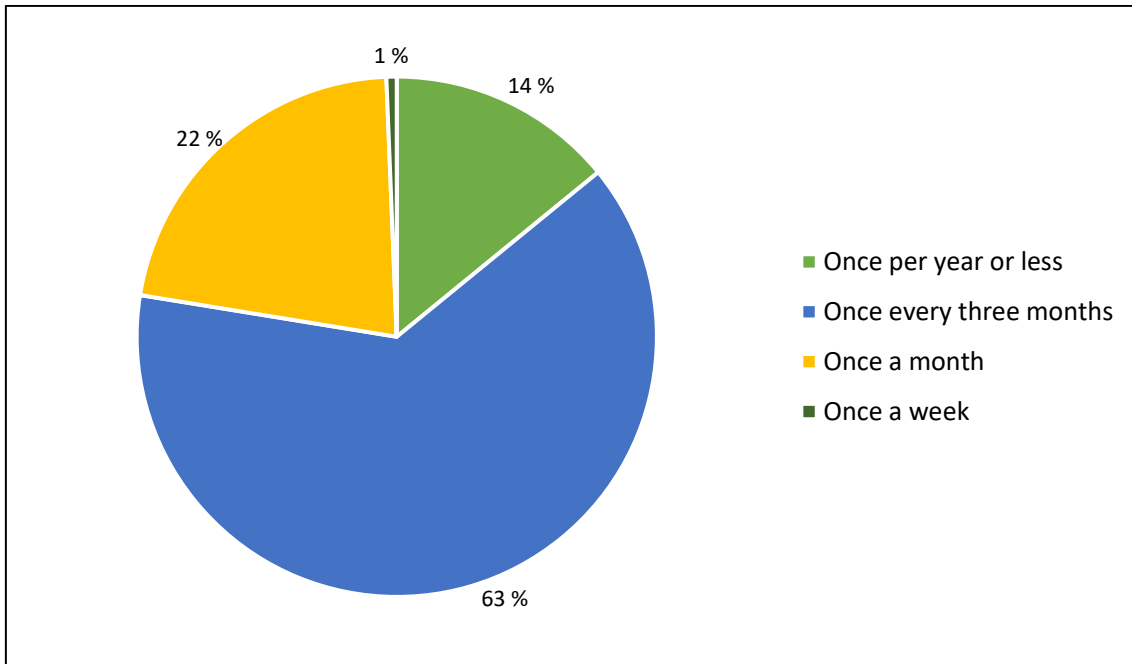
**Figure 11.** The educational background of respondents.

In Figure 11, the educational background of the respondents is presented. Most of the respondents had a bachelor's degree (n=77), and one-third had a master's degree (n=51). The rest of the respondents either had a high school level education (n=26) or a doctorate (n=2).



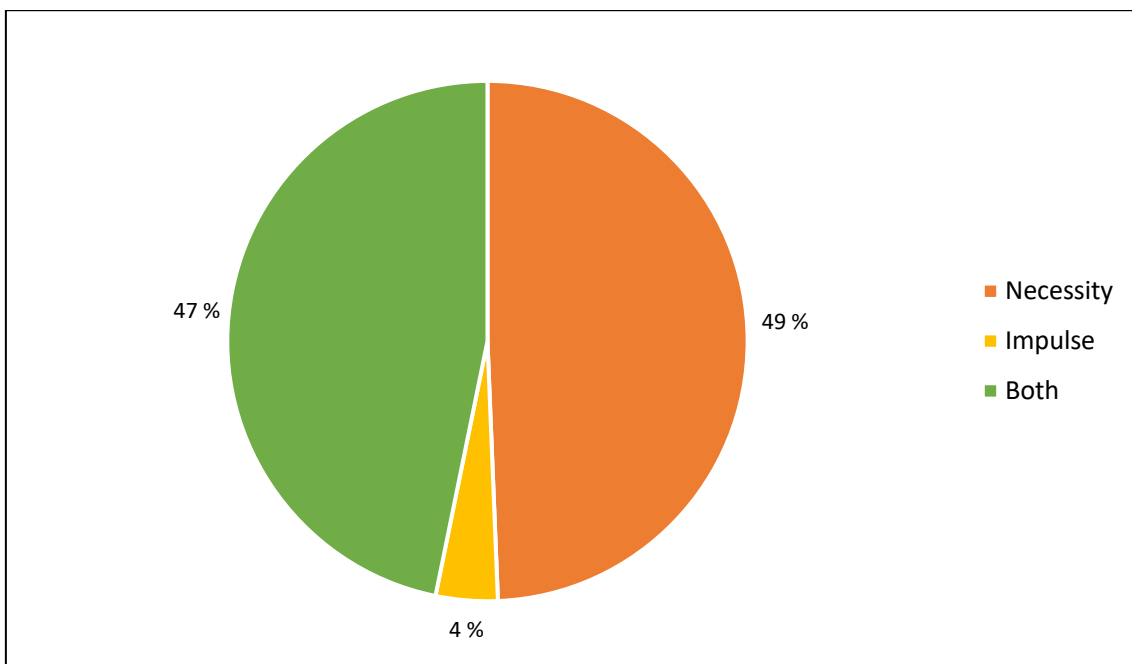
**Figure 12.** The home city of respondents.

Figure 12 presents the cities where the respondents live. The majority of the respondents live in Oulu ( $n=49$ ) or Helsinki ( $n=34$ ). Other respondents live in other big cities of Finland, either in Turku ( $n=13$ ), Vaasa ( $n=11$ ), Espoo ( $n=7$ ), Jyväskylä ( $n=5$ ) or Lappeenranta ( $n=5$ ). Some respondents ( $n=11$ ) also reported other places of living, which included Hyvinkää, Kuopio, Kauniainen, Kangasala and Sirkka.



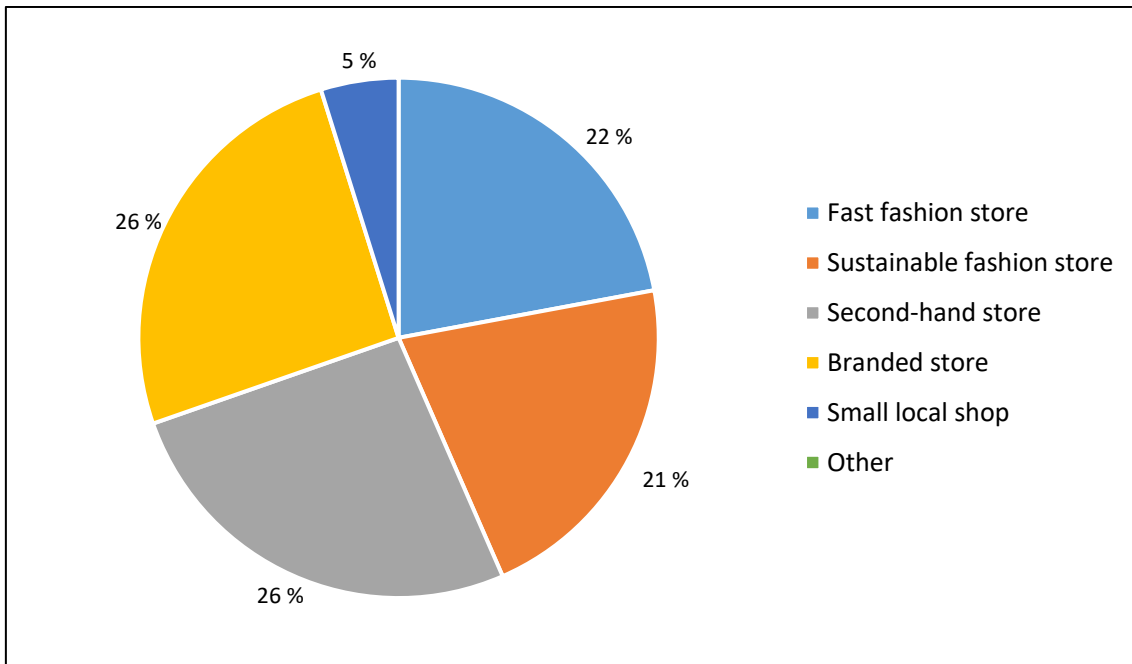
**Figure 13.** How frequently respondents buy clothing.

Figure 13 presents how often respondents purchase clothes. The majority of the respondents report that they purchase clothes once every three months ( $n=99$ ). Others purchase clothes either once per year or less ( $n=22$ ), once a month ( $n=34$ ) or once a week ( $n=1$ ).



**Figure 14.** Respondents' motivation to purchase clothing.

Figure 14 presents whether the respondents purchase clothes out of necessity or out of impulse. The respondents reported buying clothes out of necessity (n=77) more than out of impulse (n=6). However, almost half of the respondents report that they do both (n=73).



**Figure 15.** The stores where respondents usually buy their clothes.

Figure 15 presents where respondents usually buy their clothes from. Most common answers were fast fashion store (n=32), sustainable fashion store (n=31), second-hand store (n=38), and branded store (n=37). Some respondents also reported to usually buy their clothes from small local shops (n=7). Other respondents (n=11) reported that they usually shop online or utilize a mix of the different types of stores when buying clothes.

## 4.2 Confirmatory factor analysis

Instead of exploratory factor analysis, confirmatory factor analysis was performed because measures of constructs in this study are adopted from prior empirical studies. Hence, confirmatory factor analysis was run to see the internal correlation between the

borrowed measures of each construct. Table 4 lists the Cronbach alpha values of all constructs. All constructs had higher Cronbach alpha values than the minimum recommended level of 0.6 (Götz et al., 2010, p. 696).

**Table 4.** Confirmatory factor analysis

<b>Constructs</b>	<b>Items</b>	<b>Included/Removed</b>	<b>Alpha</b>
Sustainable purchase attitude	1	Inc.	0,784
	2	Inc.	
	3	Inc.	
	4	Inc.	
	5	Inc.	
Sustainable purchase behavior	1	Inc.	0,912
	2	Inc.	
	3	Inc.	
	4	Inc.	
	5	Inc.	
	6	Inc.	
Awareness of the negative effects of consumption	1	Inc.	0,848
	2	Inc.	
	3	Inc.	
Sustainable fashion knowledge	1	Inc.	0,706
	2	Inc.	
Perceived value of sustainable clothing	1	Inc.	0,848
	2	Inc.	
	3	Inc.	
Availability of sustainable clothing	1	Inc.	0,741
	2	Inc.	
Perceived customer effectiveness	1	Inc.	0,878
	2	Inc.	
	3	Inc.	
Trust in sustainability claims	1	Inc.	0,851
	2	Inc.	

### 4.3 Data analysis

Correlation analysis is used to test the relationship between different variables (Saunders et al., 2007, p. 540). Correlations were run between all variables (See table 5). Correlations between all independent variables were lower than Götz et al.'s (2010) recommended level of 0.7, indicating no issue of multi-collinearity between the variables.

**Table 5.** Inter-construct correlations.

Constructs	1	2	3	4	5	6	7
1. Awareness of the negative effects of consumption	1						
2. Sustainable fashion knowledge	0.66	1					
3. Perceived value of sustainable clothing	0.60	0.49	1				
4. Availability of sustainable clothing	0.60	0.51	0.51	1			
5. Perceived customer effectiveness	0.64	0.53	0.66	0.52	1		
6. Trust in sustainability claims	0.50	0.47	0.53	0.57	0.53	1	
7. Sustainable purchase behavior	0.69	0.58	.67	0.63	0.67	0.54	1

Multiple regression analysis was run to test the proposed hypotheses. The results of the multiple regression analysis are presented in below Table 6. The  $R^2$  for sustainable purchase behavior is .65, which suggests that the independent and control variables explain 65% of the variance in the dependent variable of sustainable purchase behavior.

Overall, five out of six hypotheses are supported. Firstly, as expected in H1, awareness of the negative effects of consumption is significantly related to sustainable purchase behavior ( $\beta = 0.21$ ;  $p=.008$ ), thus indicating support for H1. The results for H2 ( $\beta = 0.11$ ;  $p=0.114$ ) supported the notion that sustainable fashion knowledge has a significant positive effect on sustainable purchase behavior. In line with expectation, H3 is also supported, showing that there is a positive relationship between perceived value of sustainable clothing and sustainable purchase behavior ( $\beta = 0.22$ ;  $p=.003$ ). Supportive findings for H4 ( $\beta = 0.22$ ;  $p=.001$ ) indicated that availability of sustainable clothing has a positive effect on sustainable purchase behavior. The H5 concerning the positive impact of perceived customer effectiveness on sustainable purchase behavior was also supported ( $\beta = 0.16$ ;  $p=.041$ ).

**Table 6.** Multiple regression analysis results of hypotheses testing (Standardized beta coefficients and p-values).

Hypothesis	Hypotheses	Standardized Beta estimate	P-Value	Result
<b>H1</b>	Awareness of the negative effects of consumption => sustainable purchase behavior	0.21	.008***	Accept
<b>H2</b>	Sustainable fashion knowledge => sustainable purchase behavior	0.11	.114*	Accept
<b>H3</b>	Perceived value of sustainable clothing => sustainable purchase behavior	0.22	.003***	Accept
<b>H4</b>	Availability of sustainable clothing => sustainable purchase behavior	0.22	.001***	Accept
<b>H5</b>	Perceived customer effectiveness => sustainable purchase behavior	0.16	.041**	Accept
<b>H6</b>	Trust in sustainability claims => sustainable purchase behavior	0.00	.996	Reject
<b>Control variables</b>	Sustainable attitude => sustainable purchase behavior	0.13	.033**	
	Gender => sustainable purchase behavior	0.02	.353	
	Age => sustainable purchase behavior	0.07	.150*	
<b>Construct R<sup>2</sup></b>		Sustainable purchase behavior = 0.65		

\*\*\*  $p \leq 0.01$ , \*\*  $p \leq 0.05$ , \*  $p \leq 0.1$

However, contrary to expectation, trust in sustainability claims ( $\beta = 0.00$ ;  $p=.966$ ) was not significantly related to sustainable purchase behavior, thereby no support is found for H6. In terms of control variables, sustainable attitude ( $\beta = 0.13$ ;  $p=.033$ ) and consumer's age ( $\beta = 0.07$ ;  $p=.150$ ) had a positive significant impact while consumer's gender ( $\beta = 0.02$ ;  $p=.353$ ) had no significant impact on sustainable purchase behavior.

## 5 Discussion and conclusions

This chapter discusses the main empirical findings and conclusions of the study. First, the main empirical findings are presented and the research question is answered. Then the managerial and theoretical implications are presented. Finally, directions for future studies are presented and the chapter concludes with the limitations of this study.

### 5.1 Discussion about key empirical findings

The primary objective of this thesis was to investigate which factors contribute to closing the consumers' attitude-behavior gap for sustainable consumption in the fashion industry to facilitate the transition from fast fashion to slow fashion. After empirically testing the six hypotheses of this study, the results support five of them. Therefore, the results of this study present five factors that positively contribute to sustainable consumption behavior, namely awareness of the negative impacts of consumption, knowledge about sustainability, perceived value of sustainable clothing, availability of sustainable clothing and perceived customer effectiveness.

The first factor with a positive relationship to sustainable clothing consumption was awareness of the negative effects of current fashion production. Similar findings have been reported by other researchers such as Chaturvedi et al. (2022) and Saari et al. (2021). By increasing consumers' awareness about how their consumption choices affect the environment, they can begin to make mindful and sustainable consumption decisions. Furthermore, the lack of awareness has been identified as a barrier to sustainable consumption by Ronda (2024, p. 56), who states that if consumers do not have information about the negative effects of their consumption, they will not make the effort to reduce these impacts. This further emphasizes the relevance of this study's findings, as without awareness, consumers would not know why their consumption choices matter.

The second factor that was found to have a positive impact on sustainable consumption was sustainable fashion knowledge. Similar findings are reported by researchers such as Brandão and Costa (2021, p. 764), who state that sustainable knowledge is a factor that has one of the biggest positive effects on purchase intention. Similarly, Bennetta and Oeppen Hill (2022, p. 422) suggest that consumers who have more knowledge about sustainability are more likely to engage sustainable behavior. They state that when consumers understand the complex nature of sustainability, they are more likely to incorporate it into their consumption decisions. When consumers are knowledgeable about sustainability, they can make informed purchasing decisions and choose a piece of clothing that will last them a long time. The importance of these findings is also highlighted by previous studies by researchers such as Papasolomou et al. (2023) and Wiederhold and Martinez (2018) where the lack of knowledge has been recognized as a key barrier to sustainable fashion.

The third factor that was found to positively influence sustainable consumption behavior was the perceived value of sustainable clothing. This evidence supports the findings of Diddi et al. (2019, p. 204), who state that perceived value is one of the most common reasons why consumers purchase sustainable clothing. Similarly, Brandão and Costa (2021, p. 759) report a positive relationship between sustainable clothing consumption and perceived value among consumers. 66% of participants in this study also reported that they think sustainable fashion is good value for money, and over 50% agreed that sustainable fashion is durable and of good quality. This indicates that there are good sustainable clothing options available in Finland.

Furthermore, the perceived value of clothing can also negate the price sensitivity of many consumers, which has been reported as one of the biggest barriers to sustainable consumption by previous studies (Wiederhold & Martinez, 2018, p. 426). In this study, 84% of respondents reported that price is one of the characteristics that influence their purchase decisions when shopping for clothing. However, the most common response to this question was not price. Instead, the most influential characteristic was fit, which

was selected by 87% of respondents. In addition, over 44% of respondents strongly agreed and 22% agreed when asked if they would rather buy clothes that they can buy for a long time instead of trendy clothing. These results are similar to Diddi et al. (2019, p. 207), who state that the participants in their study also value quality clothing more than fast fashion. Lastly, almost 70% of respondents reported that they thought it was fair to pay more for sustainable products to cover the higher production costs. These results are similar to previous findings by Ronda (2024), who states that 64,1% of consumers in their study were willing to pay more for fashion that is environmentally friendly and in line with their self-image. Therefore, these results indicate that price is not a barrier to sustainable clothing consumption and consumers appreciate attributes such as fit, style and longevity more than just low prices alone.

The fourth factor was the availability of sustainable clothing, which was found to have a positive impact on their consumption. Similar findings are reported by Nguyen et al. (2018, p. 124), who state that increased availability of sustainable products has a positive impact on sustainable consumption. Similarly, Brandão and Costa (2021) and Diddi et al. (2019) report findings indicating that the perceived availability of sustainable products can make it easier for consumers to engage in sustainable consumption. The ease of choosing a sustainable option is particularly relevant in light of the findings by Wiederhold and Martinez (2018, p. 425), who report that participants in their study state that lack of availability acts as a barrier to sustainable clothing consumption, preferring to buy the easy and convenient option. The majority of consumers in this study report that they are aware of where to find sustainable clothing, but a lot less stated that sustainable fashion is easy to find, suggesting that the availability of options may not be as visible to consumers as it should be. This lack of availability has also been reported as a barrier to sustainable consumption by other researchers, such as Blas Riesgo et al. (2023), suggesting that increasing the availability of sustainable clothing may encourage consumers to buy them more. Sustainable clothing should be as easily available as non-sustainable clothing.

The last factor that was found to have a positive impact on sustainable fashion consumption was perceived customer effectiveness. This result supports the findings of Cao Minh and Nguyen Thi Quynh (2024) and Blas Riesgo et al. (2023), who report that perceived consumer effectiveness positively impacts consumers' sustainable consumption behavior. Similarly, Nguyen et al. (2018, p. 125) report that consumers are more likely to consume sustainably when they feel that their actions have an impact on the environment. Over 64% of the participants in this study agreed that they believe their behavior of buying sustainable clothing can have a positive impact on the environment. 73% of respondents also believed that each consumer's behavior can have a positive impact on society and the environment, suggesting that consumers are aware and knowledgeable about their power as individuals. These are positive findings especially in the light of customer-centric sustainability, as consumers play a crucial role in achieving certain sustainability goals (Sheth et al., 2011). Parvatiyar and Sheth (2023, p. 797) argue that consumers choose their preferred goods and services and companies respond to these choices by offering more of what consumers want. In this way, a systematic change in consumption patterns can be achieved.

Furthermore, trust in sustainability claims is the only factor that does not seem to be related to sustainable behavior. These results can be explained by a number of factors. First, it could be that Finnish consumers do not prioritize trust when making purchasing decisions. Only 42% of respondents said that brand is a factor they consider when buying clothes. In addition, 24% of respondents said that they usually buy their clothes from second-hand stores, where the direct relationship with the brand has been cut. It may be the case that consumers are not very brand loyal, and therefore trust in fashion brands does not influence their purchasing decisions.

Furthermore, previous researchers have found that a lack of trust in companies' sustainability claims is one of the main barriers to sustainable fashion consumption (Blas Riesgo et al., 2023, p. 10). Ronda (2024, p. 56) argues that consumers are skeptical when fashion companies promote sustainable consumption. Similar results are found in this study as

more than half of the participants indicate that they do not trust fashion companies when they say they are sustainable. To solve the increase consumer trust, researchers such as Atik and Ozdamar Ertekin (2023, p. 12) suggest that companies need to increase their transparency. However, the effect of transparency on trust and the impact of trust on sustainable consumption should be further explored.

The results also suggest that age is a demographic factor that positively influences sustainable clothing consumption. However, gender was not found to have a relationship with sustainable consumption. While the impact of age on sustainable consumption has not been extensively studied, Dhir et al. (2021, p. 7) state that older consumers who have high environmental knowledge are also more concerned about the environment. This increased environmental concern may lead to sustainable consumption. Furthermore, researchers such as Diddi et al. (2019) and Wiederhold and Martinez (2018) report that high prices act as a barrier to sustainable consumption for younger consumers. As older consumers tend to have higher incomes, they may have the financial freedom necessary to purchase sustainable clothing. Therefore, older consumers may be more likely to make sustainable purchasing choices as they face fewer barriers. However, more research is needed on this issue.

Finally, this study found no evidence to support the reported attitude-behavior gap in the field of sustainable fashion. Several researchers, such as Jacobs et al. (2018) and Ronda (2023), have found evidence to the existence of a gap between consumer attitudes and behavior. In turn, the results of this study suggest that there is a positive relationship between sustainable attitudes and sustainable behavior, suggesting that when consumers have positive attitudes towards sustainability, they translate these attitudes into behavior. However, these results may not prove that there is no attitude-behavior gap, as previous researchers such as Jasrotia et al. (2023) have also found positive evidence of the relationship between attitude and behavior. These results are also in line with the TBP by Ajzen (1991). Therefore, further research is required to understand and overcome the attitude-behavior gap completely.

## 5.2 Theoretical contributions

This study's findings contribute to the theoretical literature in multiple ways. Firstly, the attitude-behavior gap has been a subject in the literature that has required a lot of research. It is a relevant subject since the current consumption patterns are unsustainable, and a change is needed. The results provide an interesting viewpoint on the attitude-behavior gap as no evidence was found to support it. Instead, evidence was found to suggest that positive attitudes lead to sustainable consumption. This is in line with Ajzen's (1991) Theory of Planned behavior but against many previous researchers. Thus, this research may be valuable to further studies about the attitude-behavior gap and how to overcome it.

Second, this study adds to the existing literature by providing empirical evidence for five factors that enforce sustainable fashion consumption. These factors were found to have a positive relationship with sustainable consumption. Furthermore, these recognized factors could act as counterparts to the most notable barriers that have been recognized to prevent sustainable consumption behavior. Thus, this research could help the academics to determine how consumer behavior can be transferred towards more sustainable way.

Finally, to the author's knowledge, this study was the first one that covered the factors that affect Finnish consumers' sustainable consumption behavior. Previous studies have covered multiple other countries, but the factors that affect Finnish people's consumption behavior have not been researched previously. Thus, the Finnish viewpoint might be a valuable addition to the literature regarding sustainable consumption by providing evidence from a new culture.

### 5.3 Managerial implications

This study presents a few notable managerial implications that can be used to promote sustainable fashion consumption. Managers have a significant role in implementing sustainable practices for consumers, which is why communication about sustainability is relevant. The five recognized factors, awareness, knowledge, perceived value, availability and perceived customer effectiveness should be included in the communication and marketing of fashion companies to further reinforce the sustainable consumption behavior of consumers.

Moreover, it is necessary to increase consumer awareness through effective communication and education campaigns. Social media can be a good platform for different education campaigns where consumers are taught about the risks of unsustainable consumption and how to consume more sustainably. Influencers and celebrities can have a significant impact on the consumption behavior of young consumers, which is why they should be used to spread awareness and knowledge about sustainable topics. Social media could also help to reach a broader audience and promote the mainstream acceptance of sustainable consumption patterns.

Sustainable communication should also include factors that help consumers consume more sustainably. The slow fashion ideology could be communicated to consumers by teaching them that they can be sustainable by in a number of ways, such as reducing the number of clothes they buy by purchasing long-lasting clothes only when they need them. Fashion brands should focus on educating consumers on how to know which garment will last, how different materials affect the environment and how to take care of each garment to ensure its long useful life. Most importantly, consumers should be educated on why they should care about the different materials, which could be done by highlighting the different environmental impacts of non-sustainable and sustainable materials. Providing comparable information on, for example, the carbon footprint of each garment could help consumers make more sustainable consumption choices.

Furthermore, the availability of sustainable clothing should be further improved. Sustainable options should be as easily accessible as non-sustainable options to make it easier for consumers to choose the sustainable option. Half of the participants in this study would choose the more sustainable option if they had to choose between two items of clothing. Therefore, consumers should be helped to find themselves in such situations more often, and sustainable options should have similar or better attributes than non-sustainable clothing. In this way, consumers could consume in a way that is consistent with their sustainable attitudes.

Finally, managers should emphasize the importance of sustainable clothing consumption not just buying sustainable clothing. The focus of clothing consumption should be shifted from buying to using. This could be done by shifting the focus from always buying new clothes to making existing clothes last as long as possible through additional post purchase services, such as repair or reuse services. This would also increase the perceived value of clothing, as additional services could make consumers value their clothes more.

#### **5.4 Suggestions for future research**

Due to the topicality of the subject, there are several interesting options for future research. Firstly, the existence of the attitude-behavior gap should be further explored, as this research found no evidence to support it, despite several previous studies confirming its existence. The demographic differences of people who fall into the attitude-behavior gap should be further explored to understand which types of consumers face barriers that prevent them from turning their attitudes into behavior. In addition, a study comparing consumers who fall into the attitude-behavior gap with those who do not could be conducted to determine the key factors that differentiate them.

Secondly, future research could further validate this study by repeating it with a large sample size. The factors found in this study to support consumers' sustainable behavior could be tested again with a larger sample to determine if the results are similar with a

larger sample. That would confirm the validity of the findings and make the results generalizable.

Thirdly, this study could also be extended to include different factors that may influence consumers' sustainable fashion consumption behavior. For example, habits, lifestyle choices and ethical questions could be considered in future studies. In addition, the factor that was found to have no effect on Finnish consumers, trust, could be included in future studies to determine whether it is a factor that has no effect on any type of consumer or whether effects are limited to a particular consumer demographic.

Fourthly, cultural aspects should also be taken into account in future studies. For example, this study could be repeated with a sample that includes respondents from two or more different countries. In this way, the results could show how different cultures influence consumers' purchasing decisions, their attitudes and the factors that might motivate them to consume more sustainably. For example, comparing low and high context countries could yield interesting results and shed more light on different consumer behaviors around the world.

Finally, as this research has found evidence that age has a positive relationship with sustainable behavior, this could be further explored in future studies. Future studies could focus more on the different age groups and the specific factors that influence their consumption behavior. Previous studies have found that price may be a barrier for younger consumers, but not for older consumers. Therefore, research could be carried out to determine which factors most motivate or prevent different age groups from sustainable consumption.

## **5.5 Limitations**

Despite the managerial and theoretical contributions of this research, some limitations must be pointed out. First, the sample size of 156 is rather small to provide generalizable

data on the consumption behavior of all Finnish people. Therefore, the results may not correspond to the whole population. In addition, 67% of the respondents were aged between 18 and 30, which means that this age group is over-represented in the sample. This should be taken into account when considering the results of this study.

Secondly, the data was collected using a self-administered questionnaire, which allows for the possibility of participant error. The questionnaire was written in English, which was not the native language of the Finnish respondents. The language barrier could have led to some misunderstandings that could have influenced the participants' answers, despite the precautions taken by the author.

Thirdly, this study only considered sustainable consumption from a limited perspective. It only considered six factors that could contribute to sustainable consumption behavior. These factors may not be the main reasons explaining consumers' consumption behavior and there may be other factors that are even more influential on sustainable consumption behavior. Furthermore, sustainable consumption was only considered as the consumption of sustainable clothing and did not take into account the different other ways of sustainable consumption, such as anti-consumption or upcycling.

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