Do You Want to Change Your Mind?

A Study on the Effect of Trialability on CBM Purchase Intention

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Abstract

While sustainability is becoming more and more important, industries like the fashion industry are still contributing significantly to the ongoing climate crisis. In light of this, the concept of circular economy has been receiving increasing worldwide attention as a solution to overcome the current harmful production and consumption model. Despite this, consumer adoption of circular business models (CBMs) is low. By bridging CBM research with consumer research and innovation theories, this thesis, situated within the context of a children's clothing Product-Service-System (PSS), aims to study whether trialability can be an effective mean to improve purchase intention. This is done through an experiment. In addition, the study investigates knowledge as an additional independent variable and perceived risk as a potential mediator. Empirical data was collected by distributing an online survey to Swedish and German parents (n = 301). The results show that trialability has neither a significant effect on perceived risk nor on purchase intention, while knowledge has a negative relationship with perceived risk but is not related to purchase intention. In addition, the study confirms the role of perceived risk as a mediator. Furthermore, the study revealed both low perceived risk and purchase intention for the studied CBM. Hence, it can be concluded that trialability is not a viable option to improve purchase intention and that further research on other practices that might increase consumer acceptance of CBMs is encouraged.

Key words: circular business model, product service system, purchase intention, perceived risk, trialability, knowledge, fashion industry, children's clothing

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Thank you.

Elena & Malin

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Definitions

Circular Business Models (CBM):	"[B]usiness models that are cycling, extending, intensifying, and/or dematerialising material and energy loops to reduce the resource inputs into and the waste and emission leakage out of an organisational system" (Geissdoerfer et al., 2020, p.7)
Circular Economy	"[Circular Economy is] an industrial system that is restorative or regenerative by intention and design. It replaces the 'end-of-life' concept with restoration, shifts towards the use of renewable energy, eliminates the use of toxic chemicals, which impair reuse, and aims for the elimination of waste through the superior design of materials, products, systems, and, within this, business models" (Ellen MacArthur Foundation, 2012, as cited in Kirchherr, Reike, & Hekkert, 2017, p. 226)
Consumer acceptance	"A combination of positive attitudes and behavioral intentions" that results in a "readiness to adopt a new product or service" (Schrader, 1999, p. 110)
Consumer adoption	"Describes whether an individual develops a positive attitude, then intention, and finally behaviour to purchase and use a product or service" (Bücker et al., 2021, p. 8)
Knowledge	The level of familiarity a consumer has with the service and a consumer's subjective, perceived knowledge, i.e., what consumers think they know (adapted from (Serrano-Arcos et al., 2021; Utkarsh et al., 2019))
Perceived risk	"The nature and amount of risk perceived by a consumer in contemplating a particular purchase decision" (Cox & Rich, 1964, p. 33)
Product-Service System (PSS)	"A special case in servitization, which values asset performance or utilization rather than ownership, and achieves differentiation through the integration of product and services that provide value in use to the customer" (Baines et al., 2007, p. 1547)

Purchase intention	"A consumer's willingness to purchase products on a shopping website" (Chang et al., 2016, p. 1760-1761)
Risk aversion	"An individual's degree of negative attitude toward risk arising from outcome uncertainty" (Carter & Bao, 2004, p. 533)
Trialability	The opportunity for consumers to try a new service or product with the possibility to change their mind afterwards, e.g., through a money-back guarantee, in case of dissatisfaction

1 Introduction

"Every second, the equivalent of a rubbish truck load of clothes is burnt or buried in landfill."
(Ellen MacArthur Foundation, n.d.a)

Sustainability is becoming an increasingly important topic, which gets attention from not only policymakers but also companies all over the world (EU Commission, 2015; Ghisellini et al., 2016). Today, the way we live, and especially the way we consume, exceed the earth's carrying capacity which causes an irreversible harm on not only the planet's health but also by extension our own (WWF, 2021). One major driver of our unsustainable consumption is the fashion industry, whose players have established concepts like *fast fashion* over the last years (Russel, 2021). The impact human consumption has on the environment causes alarming global issues (Borrello et al., 2017) and hence actors from institutions and businesses worldwide see the need to introduce the shift towards a circular economy (ibid). In line with that, the United Nations have defined 17 Sustainable Development Goals (SDGs) to ensure a sustainable future, where SDG 12 is the goal to "ensure sustainable consumption and production patterns" (United Nations, n.d.b). One of the targets of SDG 12 is 12.5 which demands to "substantially reduce waste generation through prevention, reduction, recycling and reuse" by 2030 (United Nations, n.d.a); thus, promoting a shift towards a more circular economy.

Within the framework of sustainable development, the circular economy has become an increasingly appraised and widely recognised alternative to the current linear *take-make-use-dispose* mentality where high sales volumes and low costs are the drivers of success (Lieder & Rashid, 2016). Circular business models (CBMs) have emerged as a solution to foster more sustainable consumption by promoting a longer and more efficient use of products and materials (Ellen MacArthur Foundation, 2013a). Not only can CBMs be a solution to the already existing scarcity of natural resources, which will further be accelerated by the rapid growth of the world population, but they can also have a positive impact on the financial performance of a company (Lewandowski, 2017). However, one major challenge of the transformation to CBMs is low consumer adoption (Baines et al., 2007; Borrello et al., 2017; Bücker et al., 2021; Camacho-Otero et al., 2017; Ellen MacArthur Foundation, 2013b; Parajuly et al., 2020).

1.1 Literature Review

1.1.1 The Fashion Industry

The fashion industry is currently valued at 1.5 trillion USD (Statista, 2022b) which makes it one of the biggest industries in the world (Amed et al., 2022). One large part of the clothing industry in terms of revenue is children's clothes with an expected revenue of about 263 billion US dollars for 2022 (Statista, 2021). This constitutes nearly 20% of the fashion industry. Children outgrow their clothes at an enormous speed, leaving their parents with nearly no other choice than having to buy new clothes on a regular basis. Consequently, the traditional advice to take care of and use clothes longer simply does not work on an individual level for children's clothes. This underlines the importance and urgency of finding a circular solution that is accepted by consumers within this part of the fashion industry. In addition, getting used to a circular consumption pattern as a child might increase the probability to continue a similar behaviour as an adult. As argued by Hansen (2018), the energy consumption during childhood affected how much energy the same person used as a young adult. Furthermore, consumer socialisation research indicates that adult consumption patterns are formed during childhood (Olsen, 1993).

The fashion industry is one of the most harmful drivers towards pollution and significantly contributes to the climate crisis we can observe today (Russel, 2021). Not only is the fashion industry causing 1,715 million tons of CO2 emissions, but it also uses 79 billion cubic metres of water in production and is responsible for 92 million tons of waste per year (BCG et al., 2017). These numbers are estimated to increase by at least 50% until 2030 if no changes are undertaken (ibid). As consumers are becoming more environmentally aware, with 66% of consumers demanding more sustainable fashion solutions (Granskog et al., 2020), actors within the fashion and textiles industry are showing an increased interest in the concept of CBMs as a way to decrease business risks and negative environmental impacts (Palm et al., 2021). Due to the major contribution of the fashion industry to today's environmental crisis, this thesis will investigate practices which companies can conduct to improve consumer acceptance of a CBM. This will be done within the context of a subscription model for children's clothes.

1.1.2 Circular Economy and Circular Business Models

Many researchers have tried to define the term circular economy and have come up with different ways to do so (Lieder & Rashid, 2016). In fact, after analysing over hundred definitions of circular economy, Kirchherr et al. (2017) conclude that no unanimous definition of it exists. The most used definition, however, is the following by the Ellen MacArthur Foundation (2012, as cited in Kirchherr et al., 2017, p. 226):

> "[Circular economy is] an industrial system that is restorative or regenerative by intention and design. It replaces the 'end-of-life' concept with restoration, shifts towards the use of renewable energy, eliminates the use of toxic chemicals, which impair reuse, and aims for the elimination of waste through the superior design of materials, products, systems, and, within this, business models."

Although being traced back to at least the 1970s (Ellen MacArthur Foundation, 2013), circular economy is still an emerging research field (Geissdoerfer et al., 2017). The number of articles has continuously increased during the last decade (Bücker et al., 2021; Ferasso et al., 2020; Lieder & Rashid, 2016; Suchek et al., 2021) and a majority of papers about circular economy have been written in the last few years, indicating that the research field is still comparatively young (Kirchherr et al., 2017).

The circular economy can be looked at from three different levels: the micro (companies and consumers), the meso (local ecosystems and industrial networks), and the macro level (nations, cities, regions) (Kirchherr et al., 2017). While all three are important, the focus of this thesis will be on the micro level where the concept of CBM is relevant. This is newer than the concept circular economy and was mentioned for the first time in 2006 (Geissdoerfer et al., 2020). Together with business model innovation, circular economy constitutes the foundation for circular business models (ibid). Just as with circular economy, there are several definitions of CBM with most of them focusing on value creation (ibid). After conducting a literature review, Geissdoerfer et al. (2020) define CBMs as:

> "[B]usiness models that are cycling, extending, intensifying, and/or dematerialising material and energy loops to reduce the resource inputs into and the waste and emission leakage out of an organisational system." (p. 7)

In their definition, Geissdoerfer et al. (2020) classify CBMs into four different categories: cycling, extending, intensifying, and dematerialising. Extending and intensifying relate to the use phase and mean to extend the time the product is used and to intensify the number of uses in the same period of time. Cycling is derived from the post-use phase and includes recycling and reusing materials and energy. Dematerialising, on the other hand, refers to fulfilling the need of a product with software and services, instead of a physical item. Similarly, the Ellen MacArthur Foundation (n.d.) divides CBMs for fashion into three different types: more uses per user, more users per product and beyond physical products, which correspond to extending, intensifying, and dematerialising accordingly.

1.1.2.1 Dematerialisation and Product-Service-Systems

The focus of this thesis is on the circular practice of *dematerialisation,* which is a type of CBM that, so far, less research has been conducted on (Bücker et al., 2021). Business models that focus on dematerialisation are also referred to as Product-Service-Systems (PSS). According to Baines et al. (2007) it "is an integrated combination of products and services [...] that extends the traditional functionality of a product by incorporating additional services" (p. 1543). In general, a PSS can be defined as "a special case in servitization, which values asset performance or utilization rather than ownership, and achieves differentiation through the integration of product and services that provide value in use to the customer" (Baines et al., 2007, p. 1547). The focus of a PSS is on selling the benefits of a product rather than the actual product to transition to a system that reduces resource consumption, raw material extraction and waste generation (Lee, Sora et al., 2015). Hence, PSSs follow a customer-centric rather than a product-centric approach (ibid).

Existing literature commonly divides PSSs into three different categories: product-oriented, use-oriented, and result-oriented (Baines et al., 2007; Reim et al., 2015; Tukker, 2015). The further down the line, the more emphasis is placed on the service and the less on the product provided (Tukker, 2004). Companies that offer product-oriented PSSs sell a product in a traditional manner while they also offer additional product-related services, such as after-sales services, whereas companies that offer use-oriented PSSs do not sell a product but the access to it through rental or leasing agreements (Tukker, 2004). In result-oriented PSSs, the company sells a service without a tangible product connected (ibid), such as cleaning. Within the circular economy field, PSSs are praised for their potential to simultaneously foster sustainable

consumption while enhancing competitiveness as, for PSSs, the fulfilment of consumer needs is significantly easier at a lower impact on the environment (Tukker, 2004; Tukker, 2015). However, PSSs in general, especially use-oriented PSSs, are known to challenge existing consumer habits and behaviour (Bardhi & Eckhardt, 2012; Reim et al., 2015; Tukker, 2004; Tukker, 2015) as the ownership is shifted from the customer to the provider. This is referred to as ownerless consumption (Baines et al., 2007).

1.1.3 Consumer Acceptance of CBMs

The idea of CBMs has been around for decades, yet most of our economy is still designed and executed in a linear way. Many researchers have emphasised the issue of low consumer acceptance of circular offerings preventing a circular economy to be established (Bücker et al., 2021) with one of the main barriers being the required shift to circular consumer behaviour (Baines et al., 2007; Camacho-Otero et al., 2017). In their analysis of definitions of circular economy, Kirchherr et al. (2017) noticed that there is a significant research gap in the consumer perspective towards the circular economy. This is also supported by Borello et al. (2017), who state that "little is known about consumers' willingness to participate in a [circular economy]" (p. 1). Despite consumer acceptance being a significant factor influencing the transition from linear to circular economy, only ten percent of papers within the CBM research field address consumption (Camacho-Otero et al., 2018).

Among those who have investigated consumer acceptance within the circular economy, Bücker et al. (2021), have developed a model for circular consumer behaviour, adoption and acceptance (see Figure 1).

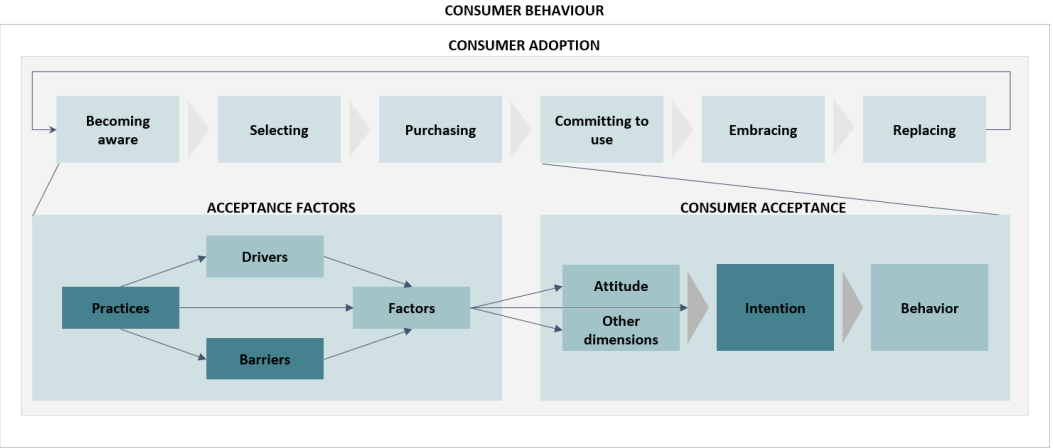

Figure 1: Consumer behaviour, consumer adoption and consumer acceptance in the circular economy (Bücker et al., 2021)

According to Schrader (1999, p. 110) consumer acceptance is the “readiness to adopt a new product or service” and is “a combination of positive attitudes and behavioural intentions” while Simon (2001, p. 87) defines it as an antagonism to the term refusal and the positive decision to use an innovation. Two terms that are closely linked to consumer acceptance are consumer adoption and purchase intention.

Consumer adoption “describes whether an individual develops a positive attitude, then intention, and finally behaviour to purchase and use a product or service” (p. 8); thus, it is a “state in which the consumer is committed to one product or service” (p. 9) (Bücker et al., 2021). Renaud & Van Biljon (2008) distinguish between adoption and acceptance by describing adoption as a process and acceptance as an attitude, where acceptance does not automatically imply adoption. However, acceptance needs to be present for full adoption to occur (ibid).

According to Chang, Fu, & Jain (2016, p. 1761) purchase intention is defined as a “consumer’s willingness to purchase products on a shopping website”. Purchase intention could be seen as a subcategory of consumer acceptance, where purchase intention is the mere intention of a consumer to purchase a product or service. Consumer acceptance includes, besides purchase intention, a consumer’s attitude toward the product or service and other behavioural intentions. Even though purchase intention does not necessarily translate into a purchase, it has a significant influence on it and is, according to Holak & Lehman (1990, p. 61), “the best measure available” for studying consumer acceptance. Hence, if purchase intention improves, also consumer acceptance should improve.

Consumer acceptance can be influenced by different acceptance factors, such as practices, drivers, and barriers, as seen in Figure 1 (Bücker et al., 2021). The highlighted part of the model in Figure 1, namely practices, barriers, and purchase intention, will be the focus of this thesis. One identified barrier towards greater consumer acceptance of CBMs is perceived risk (Bücker et al., 2021). Researchers like Lee, Jung et al. (2021) encourage the minimisation of risk factors such as financial, performance and social risk to increase consumers’ willingness to use fashion rental services. To foster consumer acceptance, companies need to find ways to reduce these uncertainties as any decision about adoption also involves a judgement about associated risk (Rexfelt & Hiort af Ornäs, 2009).

The papers within the field of circular economy that have looked at consumption have primarily addressed factors that influence consumer acceptance, for example quality, knowledge, or price, while little attention has been paid to practices companies can deploy to foster consumer acceptance (Bücker et al., 2021). Researchers like Bücker et al. (2021) encourage further research on practices such as allowing reviews on the website, clear and extensive communication provided by the company, the use of eco-labels, offering trial phases and non-committal services, as well as offering warranties (Bücker et al., 2021). Trial phases, non-committal services, and warranties are closely linked to what Rogers (2003) calls *trialability* in his innovation decision framework, while practices like eco-labels and communication are related to *consumer knowledge*.

Furthermore, many of the studies concerning CBMs and consumer acceptance have been focusing on Asian regions (e.g., Chang et al., 2016; Kim, I. et al., 2021; Lee et al., 2021), indicating that there is a potential lack of studies on European consumers. Lang, Seo & Liu (2019) also express that perceived risk might differ between consumers in Western and Asian countries. Consequently, research on consumer acceptance of CBMs in a European context can be seen as a research gap.

1.2 Research Question and Purpose

To contribute to closing the identified research gaps, this thesis will examine more closely the so-far neglected consumer perspective within the field of CBMs (Calvo-Porral & Lévy-Mangin, 2020; Camacho-Otero et al., 2017; Camacho-Otero et al., 2018). This will be done by answering the following two research questions:

(1) Can trialability decrease perceived risk and increase purchase intention of a CBM?
(2) Can knowledge decrease perceived risk and increase purchase intention of a CBM?

By studying these questions, this thesis aims to bridge studies on CBMs with consumer and marketing research using innovation theory. To conclude, the primary purpose of this thesis is to shed light on potential practices that companies can leverage to increase consumer acceptance of CBMs and foster the transition towards a circular economy, thereby accelerating the long-overdue transition towards a circular economy to save the Earth and all that lives on it.

1.3 Delimitations

This thesis has delimitations in three areas: geography, context, and data collection. Firstly, the data collection has been geographically limited to Sweden and Germany for practical reasons, as this is where the researchers originate from and speak the language. In addition, this contributes to closing the gap of studies on CBMs and consumer acceptance in a European context.

Furthermore, within the focus on circular economy, this thesis has been delimited to one type of CBM. Only a use-oriented PSS will be included in the research as, so far, less research has been conducted within the field of dematerialisation (Bücker et al., 2021). This has been further narrowed down to the context of the fashion industry as the production and consumption of clothing is a major contributor to the environmental crisis we experience today. This is especially relevant for children's clothing as children are growing at a rapid pace and need new clothes on a regular basis. However, as the implementation of PSSs within children's clothing has shown to be difficult (Petersen & Riisberg, 2017), it is of utmost importance to limit negative consequences within this industry through CBM innovation. Therefore, this thesis researches consumer acceptance of a subscription model of children's clothes and is delimited to this context.

Lastly, this thesis only looks at behavioural intentions, more specifically purchase intention, instead of actual behaviour because of practical constraints regarding data collection. To collect data on behaviour, one must observe that specific behaviour in reality. Setting up a real CBM that people can buy from was deemed too impractical considering the resources, practical boundaries, and time frame of this thesis. Instead, this thesis studies purchase intention since it is more specific and tangible and is often seen as an indicator of behaviour (Kamalul Ariffin et al., 2018).

1.4 Research Outline

As one of the factors negatively affecting consumer adoption of a specific circular offering is perceived risk (Lee et al., 2021), companies need to find ways on how to reduce this barrier to successfully implement CBMs. Therefore, the researchers of this thesis have chosen to study whether companies can use trialability or knowledge to lower the risk barrier and increase purchase intention of a CBM to make valuable contributions to the literature on the consumer

perspective of CBMs. In this study, the primary focus has been on trialability which has been tested through a money-back guarantee to incorporate several of Bücker et al.'s (2021) suggestions of practices to improve consumer acceptance. Trialability is deemed a powerful tool that effects consumers behaviour within marketing (Diamantopoulos et al., 2012) and is, according to Rogers (2003), an important part of the consumer adoption process of new products and services. The researchers also decided to include the factor knowledge in their research to identify the correlations with perceived risk and purchase intention of CBMs for two reasons. First, information seeking is a tactic used by consumers to reduce uncertainty about an innovation (Cox, 1967; Rogers, 2003), and second, knowledge effects all stages in a consumer's decision process (Bettman & Park, 1980). Practically, this will be done through a quantitative, experimental study directed towards parents and situated within the context of a children's clothing PSS. For this purpose, hypotheses will be generated from existing theory using a deductive approach and will then be tested through statistical methods.

2 Theory

2.1 Consumer Acceptance and Adoption Models

Besides the model presented by Bücker et al. (2021), there are several other models of consumer acceptance and adoption of new technologies. In a literature review of consumption in the CBM field, Camacho-Otero, Boks & Pettersen (2018) classify adoption models into three main categories: (1) utilitarian approaches, (2) consumer culture approaches, and (3) institutional, socio-technical, and socio-material theories.

One of the most used utilitarian consumer adoption model for CBMs is the Theory of Planned Behaviour, developed by Ajzen (1991). It describes how behavioural attitude, subjective norms, and perceived behavioural control influence intention, which in turn influences behaviour (Taherdoost, 2018). Another example of a utilitarian approach is the Prospect Theory developed by Kahneman & Tversky (1979). Prospect theory is a descriptive economic model for how humans make decisions under risk that explains why people often are inconsistent in their preferences or might prefer certain over uncertain outcomes with a higher payoff.

An example of a consumer culture approach is the Consumer Culture Theory (CCT). CCT is a collection of studies that look at consumption from a cultural and social point of view (Arnould & Thompson, 2005). According to Camacho-Otero et al. (2018) those theories "are concerned with the entire consumption cycle, from acquisition to the possession and disposition of goods, and provide insights on the symbolism of consumption and its role in processes of identity creation and differentiation" (p. 5).

Despite their relevance in other contexts, those models were deemed inappropriate for the purpose of this study as they do not take purchase intention or consumer acceptance into consideration, nor do they focus on how companies can use practices to influence perceived risk and consumer behaviour. Instead, this study focuses on a socio-technical framework, namely the Diffusion of Innovation Theory.

2.1.1 The Innovation-Decision Process

A less commonly used model when studying CBMs is the Diffusion of Innovation Theory developed by Rogers (2003). Only 4% of the studies in Camacho-Otero et al.'s (2018) literature review used socio technical studies as theoretical frameworks. In his book, Rogers (2003) states that diffusion "is the process by which an innovation is communicated through certain channels over time among the members of a social system" (p. 5). He explains that diffusion occurs within a population over time and is composed of many individual adoption processes termed *innovation-decision process* (Rogers, 2003).

The innovation-decision framework includes five different stages of adoption: the knowledge phase, the persuasion phase, the decision phase, the implementation phase, and the confirmation phase. These stages describe the process through which consumers pass before they adopt an innovation. According to Rogers (2003) consumer adoption starts from the decision phase. Since consumer acceptance according to Bücker et al. (2021) comes before adoption, one can therefore classify the stages before decision making as acceptance stages. The knowledge, persuasion, and decision phase influence consumer acceptance while the decision, implementation, and confirmation phase influence consumer adoption where the decision phase corresponds to making a decision about the purchase. See Figure 2 for an adapted illustration of the five stages.

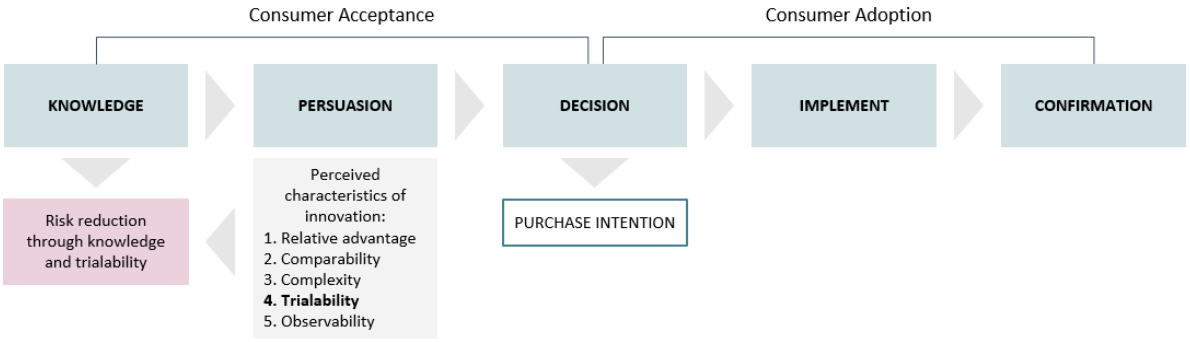

Figure 2: The five stages of the innovation-decision process (Adapted from Rogers, 2003)

The time between when innovations first become available and when they are widely adopted can be lengthy for many innovations, as not all consumers move equally fast through the different phases (Rogers, 2003). In the knowledge phase, a consumer becomes aware of an innovation through exposure to its existence and thereby gains an understanding of the innovation's benefits and functions (ibid, p. 171). During the following persuasion stage, the consumer develops a favourable or unfavourable attitude toward the innovation after having evaluated the uncertainties about an innovation's expected outcomes and consequences. Trialability, among other factors like the innovation's relative advantage to other products, comparability, complexity, and observability, play a major role in this evaluation (ibid).

Trialability refers to "the degree to which an innovation may be experienced with" (p. 258) which increases the rate of adoption (ibid) and will be further elaborated on in section 2.4. After having evaluated the benefits and drawbacks, a consumer decides whether to adopt or reject an innovation during the decision phase before starting to use it during the implementation stage. As a final step of the process, the confirmation phase, a consumer re-evaluates the innovation, based on satisfaction of needs and successful elimination of dissonance. Dissonance refers to an uncomfortable state of mind in which expectations are not aligned with reality which consumers try to reduce or eliminate through seeking knowledge, adapting attitudes, or taking action. Based on this, the consumer decides whether to discontinue or continue using the innovation on a regular basis, including it into their routine, and potentially recommending it to others (ibid).

The innovation-decision process theory has been widely used across different disciplines and praised for its applicability (Atkin et al., 2015). However, it has also been criticised. While

Rogers (2003) describes the innovation-decision process as distinct, sequential stages, Lyytinen & Damsgaard (2001) mention that innovations are often too complex to be adopted in a linear sequence and instead describe it as an iterative process where steps can be layered or revisited after engaging in feedback loops. In addition, the model neglects the influence of external, societal factors, such as competing innovations, and instead focuses on the individual characteristics and preferences of the consumer when moving through the stages of the model (ibid). Despite its criticism, the innovation-decision process model has been deemed appropriate for this thesis as the focus is not on the diffusion process of CBMs within the society but on the adoption process, which takes place at the individual level (Rogers, 2003).

In this thesis, the innovation-decision process model will be used as the underlying theoretical framework. As CBMs are still new to a majority of consumers, they can be classified as an innovation to them. According to Rogers (2003), the degree of newness depends not only one the level of knowledge but also on whether an adoption or rejection decision has yet been made. This makes the innovation-decision model and its phases relevant for studying consumer acceptance of CBMs. The thesis will consider the following stages: knowledge, persuasion, and decision phase, which represent the "mental exercise of thinking and deciding" (ibid, p. 179), while it will neglect the two last stages that deal with the active usage of the product and the decision to include it into one's routine (ibid, p. 199). More specifically, the thesis will focus on knowledge and trialability as means to reduce uncertainty and increase consumer purchase intention.

2.2 Conceptual Framework

The conceptual framework for this study represents a synthesis of consumer behaviour and innovation theory put into the context of a CBM. It is divided into five variables: the dependent variable *purchase intention*, the two independent variables *trialability* and *knowledge*, the mediating variable *perceived risk* and the moderating variable *risk aversion*. The following paragraph will highlight the theoretical assumptions for each hypothesis developed for the conceptual model presented in Figure 3.

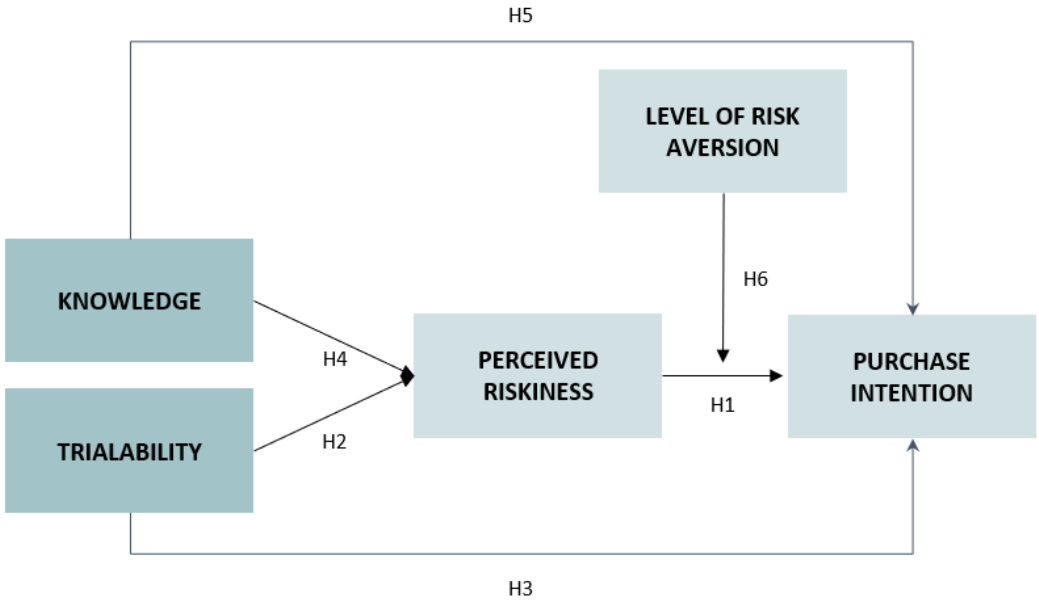

Figure 3: The proposed conceptual framework

2.2.1 Perceived Risk

Perceived risk is a powerful explanator of consumer behaviour as consumers in general are keen on avoiding mistakes (Mitchell, 1999). Furthermore, perceived risk is considered an important part of consumers' decision making (Conchar et al., 2004) and various researchers have shown that risk can negatively influence purchase intention (Chen & Chang, 2012; Kamalul Ariffin et al., 2018). According to Cunningham (1967), perceived risk has two aspects: uncertainty and consequences. Uncertainty, on the one hand, is connected to correctly identifying the goals of the purchase or matching the purchase with the goals. Consequences, on the other hand, are connected to performance goals, psychosocial goals, and the invested means, such as whether the purchase will affect how others think about the consumer or if the product is going to work adequately. The terms risk and uncertainty can be used interchangeably (Taylor, 1974); which will be the case for this thesis as well. According to Cox & Rich (1964) perceived risk is defined as "the nature and amount of risk perceived by a consumer in contemplating a particular purchase decision" (p. 33). Hence, it differs from *objective* or *absolute* risk, in a sense that two different consumers can look at the exact same offering and have different perceptions of the risk associated with it. This thesis will concentrate on the perceived risk as it is the consumer's subjective perception of risk that influences consumer behaviour; not the objective risk (Mitchell, 1999). Moreover, perceived

risk depends on context, e.g., whether the purchase is concerning “low-involvement goods, gifts, or high-visibility durables” (Conchar et al., 2004, p. 425).

The perceived risk connected to purchase intention can be divided into different types of risk. Jacoby & Kaplan (1972) identified five types of risk: financial, performance, physical, psychological, and social risk. Chen & Chang (2012) chose to look at green risk in connection to electronic products. Based on earlier studies, Kim, Hye & Lee (2021) divided risk into financial, functional, aesthetic, and sanitary risk for their study on circular fashion and concluded that sanitary risk affected product attitude the most while no impact was found for financial and functional risk. According to Lee, Jung & Lee (2021), several studies have indicated the importance of financial risk, performance risk, psychological risk, and social risk for fashion rental services. However, in line with the reasoning of Laroche, Bergeron, & Goutaland (2003), the primary interest of this thesis is not perceived risk per se, but rather how it is affected and how it can be decreased to improve purchase intention. Therefore, measuring different types of risks individually would only make it unnecessarily complex without a significant contribution to the result. Correspondingly, Huy Tuu et al. (2011) argue that when looking at perceived risk as a mediator it makes more sense to use a global notion of risk. Therefore, this thesis uses a global measure of perceived risk as well.

According to Rexfelt & Hiort af Ornäs (2009), one of the primary aspects of consumer acceptance of PSSs is to reduce uncertainty. Furthermore, their research indicates that consumers are willing to try out an offer they are sceptical about if they can do so in a risk-free way. This indicates that a lower perceived risk might increase consumer acceptance. Further, Lee, Jung & Lee (2021) encourage the minimisation of risk factors such as financial, performance and social risk to improve purchase intention. Yet, when looking at online purchase intentions, the results are mixed. For instance, Liao, Hu et al. (2021) found that electronic word-of-mouth has a fully mediated role between perceived risk and online purchase intention, while the direct relationship between perceived risk and online purchase intention was not significant. Kamalul Ariffin, et al. (2018) on the other hand, found that financial, product, security, time, and psychological risk had a negative impact on online purchase intention, while the relationship between social risk and purchase intention was insignificant. Green risk, relating to negative environmental consequences, has nonetheless been shown to have a negative impact on green purchasing intentions (Chen & Chang, 2012). Perceived risk

has also in other studies been shown to have a negative effect on purchase intention (Chang et al., 2016; Chen & Chang, 2012; Cozzarin & Dimitrov, 2015).

To conclude, although the literature about the relationship between perceived risk and purchase intention does not seem unequivocal regarding which aspects of risk affect purchase intention, a majority points toward perceived risk having a negative effect on purchase intention (Chang et al., 2016; Chen & Chang, 2012; Cozzarin & Dimitrov, 2015; Kamalul Ariffin et al., 2018; Lee et al., 2021; Rexfelt & Hiort af Ornäs, 2009). This is because consumers experience higher perceived risk when there is uncertainty regarding the consequences of the purchase (Cox, 1967), which implies that there exists uncertainty about whether consumers will make a mistake or not. Consumers want to avoid making mistakes (Mitchell, 1999), as this causes negative consequences (Cox, 1967). For this reason, consumers will be less prone to develop purchase intention when perceived risk is higher. Accordingly, the following hypothesis is proposed:

H1: The perceived risk of a CBM has a negative effect on the purchase intention of a CBM.

2.2.2 Trialability

According to Rogers (2003), consumer behaviour towards an innovation is not determined by the time it has been around but by its perceived degree of newness to an individual and with that, its level of uncertainty. The idea of a circular economy has been around for some time (Ellen MacArthur Foundation, 2013); however, CBMs as vehicles of the circular economy are facing a low rate of consumer acceptance (Bücker et al., 2021; Camacho-Otero et al., 2017). Consequently, most consumers still consider CBMs a newness and by extension an innovation. A lot of research on consumer acceptance in different areas has been undertaken, such as innovative food production (Albertsen et al., 2020) which indicates that consumers tend to be sceptical towards innovative offerings and associate a higher risk with them. For many consumers, trying new offers comes with a high level of uncertainty which to a large extent is attributable to the uncertainty about what will be delivered and whether it matches a consumer's expectation (Rexfelt & Hiort af Ornäs, 2009). Uncertainty reduction is thereby inherent in the innovation adoption process. Research has shown that this is particularly relevant for service innovations as outcomes of services are intangible, lack standardisation and quality, and

therefore cannot be fully assessed beforehand, which in turn leads to greater uncertainty for the consumer (ibid; Jones et al., 2002; Zeithaml et al., 1985).

In the innovation-decision process model, trialability is one of the five innovation characteristics that influences the decision whether to adopt or reject a particular innovation (Rogers, 2003). Trialability is in the innovation-decision process model defined as the opportunity to experiment with the innovation prior to committing to its usage (ibid). According to Rogers (2003), the opportunity to try an innovation will increase the rate and speed of consumer adoption as the trial can disperse a person's uncertainty. This is in line with Rexfelt et al. (2009) who state that the level of perceived risk depends on the possibility to change one's mind and to what extent the outcome can be modified after the purchase, if dissatisfied. The latter point is particularly relevant for services as the level of customization before, during, and after the purchase is high (ibid). Similarly, Bücker et al. (2021) suggest that the practice of offering a test phase can decrease consumers' perceived risk of a CBM. One common tactic within the category of trialability used by marketers to reduce consumer risk is offering a money-back guarantee (Diamantopoulos et al., 2012). This means customers have the assurance that they can get the money they paid back if they are not satisfied with the service (Boshoff, 2002). Additionally, Boshoff (2002) has found that an unconditional guarantee, i.e., a full refund is promised in case of dissatisfaction, significantly reduces risk perceptions compared with no service guarantee at all. To conclude, this thesis will define trialability as the opportunity for consumers to try a new service or product with the possibility to change their mind afterwards, e.g., through a money-back guarantee, in case of dissatisfaction.

Trialability is an opportunity to change one's mind and this ability decreases consumers' perceived risk (Rexfelt & Hiort af Ornäs, 2009). The option to change one's mind after making the purchase decreases a consumer's perceived risk because it limits the impact of potential negative consequences. If consumers realise that the product or service does not meet their expectations, they can just change, modify, or reverse the purchase. In other words, consumers who are presented the opportunity to try a circular offering, with a money-back guarantee should perceive the CBM as less risky. Ergo, the following hypothesis is developed:

H2: Trialability has a negative effect on the perceived risk of a CBM.

Having the opportunity to personally try out an innovative product or service provides consumers with the possibility to "give meaning to an innovation and to find out how it works under one's own circumstances" (Rogers, 2003, p. 258). Together with the assumption that trialability dispels consumers' uncertainty, it can be argued that trialability can increase the rate and speed of consumer adoption giving consumers more flexibility at less risk. This implies that purchase intention, which is a subcategory of consumer adoption and the third step in the innovation-decision process, will also increase with trialability. On top of that, several studies confirmed that trialability has a direct positive effect on behavioural and purchase intention (Chou et al., 2012; Holak & Lehmann, 1990; Hosseinikhah Choshaly, 2019; Ostlund, 1974). This leads to the following hypothesis:

H3: Trialability has a positive effect on the purchase intention of a CBM.

2.2.3 Knowledge

The role of consumer knowledge has been extensively researched in various contexts of consumer behaviour (Huy Tuu et al., 2011; Laroche et al., 2003; Nepomuceno et al., 2014) and many researchers have found that consumer knowledge significantly affects consumer behaviour (Hadar et al., 2013; Xin & Seo, 2020). Consumer knowledge in its simplest form is defined as "the information stored within memory" (Engel et al., 1990, p. 281) and has traditionally been divided into two major components: familiarity and expertise (Alba & Hutchinson, 1987). Familiarity is defined by "the number of product-related experiences" the consumer has made while expertise is defined as a consumer's "ability to perform product-related tasks successfully" (Alba & Hutchinson, 1987, p. 1). In addition, some researchers break down expertise into subjective and objective knowledge (Cordell, 1997; Utkarsh et al., 2019). Subjective knowledge is defined as what consumers think they know, also referred to as perceived knowledge, while objective knowledge refers to what consumers actually know (Serrano-Arcos et al., 2021; Utkarsh et al., 2019). As Donoghue et al. (2016) found that subjective knowledge has a stronger influence on actual behaviour, this thesis will focus on subjective knowledge only. Consumer knowledge will be defined as the level of familiarity a consumer has with the service and a consumer's subjective, perceived knowledge, i.e., what consumers think they know.

There are several different sources of knowledge through which consumers can actively search for information or acquire them through passive exposure to information (Rogers, 2003).

Examples of knowledge sources are personal, past experiences and (electronic) word-of-mouth as well as information provided by the company, advertisement, or the brand itself. Consumers today are frequently exposed to information even when not intended, mainly through both offline and online advertising (Ha, 2002). Word-of-mouth is ranked as one of the most important information sources that is reducing risk for consumers making a purchase decision, especially in an e-commerce setting (Ha, 2002; Litvin et al., 2008).

Word-of-mouth is defined as "the communication between consumers about a product, service, or a company in which the sources are considered independent of commercial influence" (Litvin et al., 2008, p. 459). Reliance on the past experiences of others is considered a powerful source to reduce uncertainty about a product or service and hence to reduce risk before making a purchase decision (Cox, 1967) and are especially important for services, which are difficult to evaluate prior to their consumption (Litvin et al., 2008). As electronic word-of-mouth is widely available and easily accessible via the Internet, this gives consumers an opportunity to actively search for information about a product or service to reduce the risk before they decide (Lampert & Rosenberg, 1975). Therefore, (electronic) word-of-mouth affects whether a consumer accepts or rejects a new product or service and the speed of this process (ibid). This thesis, however, will not focus on different sources of knowledge but rather look at knowledge in general terms.

In consumer research, knowledge is considered a characteristic that equally influences all phases in a consumer's decision process, including search, information processing and choice (Bettman & Park, 1980). Consumers constantly gather and store information which is then used to evaluate products and services and to make choices (Oh & Abraham, 2016). Consistent with that perspective, Havlena & DeSarbo (1991) found that risks associated with the purchase of new products are often high because of the consumers' lack of information and prior experience. This is supported by Cox (1967) who states that "perceived risk is a function of uncertainty and consequences" (p. 7), thus a consumer can either reduce uncertainty through gathering information or by reducing the amount at stake. In line with that, Rogers (2003) explains that during the knowledge phase (the first stage) of the innovation-decision process, consumers try to reduce the uncertainty about the innovation's advantages and disadvantages by seeking and processing information. Hence, it can be concluded that consumer knowledge influences how consumers evaluate the risk inherent in a specific purchase (Murray & Schlacter, 1990).

As knowledge is the first step in the innovation-decision process by Rogers (2003), it is the underlying base for the following steps of the process. In addition, knowledge is ranked one of the most influential means to reduce risk during the purchase decision process. One factor of perceived risk is uncertainty (Cox, 1967), and knowledge about a product or service reduces uncertainty about that product or service. Subsequently, knowledge can be considered the opposite of uncertainty and is hypothesised to have a negative effect on perceived risk. This leads to the following hypothesis:

H4: Knowledge has a negative effect on the perceived risk of a CBM.

Knowledge affects whether a favourable or unfavourable attitude about a product or service is developed (Rogers, 2003). If a consumer has a favourable attitude about a product or service, i.e., they think it is a good product or service, they are more likely to want it. If a consumer wants something, they are more likely to develop a purchase intention than if they do not like or want it. Consequently, the following hypothesis is developed:

H5: Knowledge has a positive effect on the purchase intention of a CBM.

2.2.4 Risk Aversion

In 1967, Cunningham suggested that perceived risk varies with both product category and people; as "the perception of risk is unique to each individual" (Cox, 1967, p. 108). People have different perspectives on risk, which often is denoted as the level of *risk aversion* (Boshoff, 2002; Carter & Bao, 2004). Risk aversion is an individual attitude towards risk, and Carter & Bao (2004) define it as "an individual's degree of negative attitude toward risk arising from outcome uncertainty" (p. 533). According to Baz et al. (1999), risk aversion can both be defined as a tendency to avoid risk when possible or to dislike when risk is increasing. A person who is risk-averse prefers a certain outcome over a riskier outcome, even though the expected pay-off is the same (Carter & Bao, 2004). Conchar, Zinkham et al. (2004) differentiate between *risk affinity* and *risk-taking propensity*, where risk affinity is a consumer's general risk behaviour. A person with a high level of risk affinity prefers, or enjoys risk, and would therefore choose a riskier option over a safer one, even with the same expected pay-off. Hence, this corresponds to having a low risk aversion. Risk-taking propensity, on the other hand, is the

consumer's choice to take on or avoid risk after having made a risk assessment of a specific situation or offer (Conchar et al., 2004).

Risk aversion depends on different factors, including religion (Hilary & Hui, 2009) and other personal characteristics, where for example, anxiety has a positive relationship with risk aversion (Conchar et al., 2004). One of Holt & Laury's (2002) studies implies that risk aversion is not constant; rather it is relative and increases with payoffs. Risk aversion also differed whether the respondents were faced with real or hypothetical choices, which showed that it is hard to imagine how one would actually behave in a real situation. In general, the respondents tended to underestimate their own risk aversion (Conchar et al., 2004).

Risk aversion has in several studies shown to have an impact on behavioural intention and on purchase decisions (Kim, M. et al., 2021). Within the field of online travelling communities, Lee & Hyun (2016) showed that risk aversion has a moderating effect on the relationship between trust beliefs and "willingness to return to [online travelling communities] more frequently in the future" (p. 1873). In addition, risk aversion has been shown to have a moderating effect on behavioural intention when looking at the persuasiveness of a message within the restaurant industry (Kim et al., 2021). In a study on hotels in China, risk aversion was shown to have a positive impact on perceived psychological, social and performance risk (Sun, 2014). However, the relationship was not significant between risk aversion and perceived financial risk, which according to Sun (2014) could depend on the fact that a consumer will always experience uncertainty connected to financial loss irrespective of the level of risk aversion when purchasing a hotel service. Furthermore, according to Havlena & DeSarbo (1991) the risk assessment is affected by risk sensitivity. Consumers with less risk aversion tend to be less concerned about the potential of failure of a new product; instead, they focus on the perks (Mazumdar, 1993).

To summarise, it seems to be ambiguous whether risk aversion affects perceived risk, the relationship between perceived risk and purchase intention or purchase intention directly. However, risk assessment seems to be influenced by risk aversion (Havlena & DeSarbo, 1991), risk aversion appears to moderate behavioural intentions (Kim et al., 2021), and less risk aversion might lead to less focus on potential drawbacks (Mazumdar, 1993). In other words, if a consumer has a high level of risk aversion, they have a low tolerance of risk. This means that their "cut-off" for how high perceived risk can be to still be tolerated is lower than for someone

with a low level of risk aversion. Consequently, the level of risk needs to be lower for someone with a high level of risk aversion to still make a positive purchase evaluation and thereby develop a purchase intention. Thus, it is hypothesised that risk aversion will affect the relationship between perceived risk and purchase intention and the following hypothesis is developed:

H6: A person's level of risk aversion will moderate the relationship between perceived risk and purchase intention of a CBM, where a lower level of risk aversion will increase acceptance of a CBM.

2.2.5 Summary of Hypotheses

See Table 1 for a summary of the proposed hypotheses.

Relationship	**Hypothesis**
Perceived risk and purchase intention	H1: The perceived risk of a CBM has a negative effect on the purchase intention of a CBM.
	H6: A person's level of risk aversion will moderate the relationship between perceived risk and purchase intention of a CBM, where a lower level of risk aversion will increase acceptance of a CBM.
Trialability and perceived risk	H2: Trialability has a negative effect on the perceived risk of a CBM.
Trialability and purchase intention	H3: Trialability has a positive effect on the purchase intention of a CBM.
Knowledge and perceived risk	H4: Knowledge has a negative effect on the perceived risk of a CBM.
Knowledge and purchase intention	H5: Knowledge has a positive effect on the purchase intention of a CBM.

Table 1: Summary of proposed hypotheses

3 Method

3.1 Methodological Approach

As the overall intention of this study was two-fold, the methodological approach was chosen accordingly. This study intended to, firstly, identify causality for the relationships between

trialability, perceived risk and consumer purchase intention, and secondly, identify correlations between knowledge, perceived risk, and consumer purchase intention.

3.1.1 A Quantitative Study

Although still considered an emerging research field (Geissdoerfer et al., 2017), research on CBMs has been conducted since the 1970s (Ellen MacArthur Foundation, 2013). In contrast, research on perceived risk was considered a mature research field more than 20 years ago (Mitchell, 1999) while research on consumer behaviour emerged in the 1950s (Fullerton, 2013). Therefore, a quantitative study including hypothesis testing was deemed suitable in accordance with Edmondson & Mcmanus's paper (2007) on methodological fit, which states that for mature research fields quantitative studies are recommended. Since a lot of research on the chosen subjects exists, it was possible to use prior theory to derive hypotheses (Edmondson & Mcmanus, 2007). Even though a qualitative study within the area of CBMs and consumer acceptance would have been feasible, too, this did not fit the purpose of the study. The intention of this study was not to generate suggestions and explanations of practices, as an extensive overview of potential practices has already been produced by Bücker et al. (2021). Instead, the aim was to test the relationship between a specific practice, denoted as the independent variable *trialability*, and the dependent variable *purchase intention* to conclude whether this can be a successful practice for companies to overcome barriers and increase purchase intention. For this a quantitative experimental study was necessary. In addition to that, the survey data were used to examine the correlation of the independent variable *knowledge* on the dependent variable *purchase intention*.

3.1.2 An Objectivistic and Positivistic Position

The research has been conducted from an ontological positioning. As such, data have been looked at as independent from social actors such as the researchers (Bell et al., 2019) with the aim to collect it in in an objective and value-free way. A self-reporting questionnaire was used to set up an external process that was neither influenced by the researchers nor the subject of the research itself. Hence, the researchers were not present during the data collection. In line with a quantitative study and an ontological orientation, a positivistic point of view was adopted. According to positivism, objects are assumed to exist outside of social reality (Bell et al., 2019). For the research design this meant that systematic observations of parent's purchase intention of a CBM were compiled to acquire generalisable knowledge, in similarity to the philosophical stance of a natural scientist (Saunders et al., 2009).

3.1.3 A Deductive Approach

Further, this research has followed a deductive approach, which is a common method used within positivism (Bell et al., 2019) as it allows for generalisation and establishing causality (Clow & James, 2013). This means that the developed hypotheses have been derived from existing literature and theory in the fields of consumer behaviour, innovation, and CBMs. These hypotheses were then subsequently tested using empirical data to explain causal and correlational relationships between the selected variables (Bell et al., 2019). The main relationship was hypothesized to be found between the dependent variable *purchase intention* and the independent variables *trialability* and *knowledge,* respectively. In addition, *perceived risk* was identified as a mediator between *trialability/knowledge* and *purchase intention*. Furthermore, as part of the design, *risk aversion* was included as a moderating variable as it was concluded from theory that this variable should impact the strength of the relationship between the mediator and the dependent variable.

3.2 Research Design

A self-administered online questionnaire was chosen as the preferred data collection method as it facilitates the collection of larger amounts of data. In addition to that, it decreases the risk of social desirability bias among respondents due to the absence of interviewers, is convenient for both researchers and respondents, and eliminates the potential impact of change in the question orders as it follows a standardised format (Bell et al., 2019). Bell et al. (2019) argue that it is the most common method used for quantitative studies, even though self-reporting has some limitations with regards to honesty of respondents and data quality. However, the advantages were considered to outweigh the disadvantages. In addition, the researchers have, to the best of their abilities, limited disadvantages by, for example, using existing questions that have demonstrated consistent results over time and including a control question to check the respondents' attention.

To examine the causal effects between trialability, perceived risk, and purchase intention and thereby revealing the influence of trialability as a marketing activity an experimental part of the survey was deemed appropriate (Söderlund, 2018). The experimental survey was designed in a way that tried to disguise the purpose of the experiment to minimise or preclude any bias of the respondents (Clow & James, 2013). The way the survey was designed, which is described in the following section, allowed the researchers to study the effect of the independent variable

trialability on the dependent variable *purchase intention* and establish a cause-and-effect relationship. To examine causality, *trialability* was manipulated into two different versions, holding all other variables constant (ibid). *Knowledge*, which is the second independent variable, was not manipulated, but only measured within the population as it is harder to control for. Therefore, it is not suitable for a manipulation.

To reach a larger and more diverse group of respondents the survey was written in two language versions: one in Swedish and English and one in German and English. All the questions used for the survey were adapted from previous studies to ensure measurement quality (Bell et al., 2019). As all the questions included in the survey were originally written in English, translations to Swedish and German were required. The process of translating in general can lead to distortions due to the different meaning and syntax of words as well as other cultural differences (Ervin & Bower, 1952). This could potentially affect the result of the study since the participants were exposed to different language versions. To reduce dissimilarities, the researchers followed the process suggested by Ervin & Bower (1952). The researcher fluent in Swedish and English translated the survey questions to Swedish, while the other researcher fluent in German and English translated them to German. The translations were thereafter translated back to English by two neutral persons who are fluent in English and Swedish, and English and German, respectively. The new English translations were then compared to the original English one. This led to some minor adjustments of wording choices in both the Swedish and German version. This back-translation was conducted to ensure that the Swedish and German translations were truthful to the original English formulations, thereby minimizing the risk of creating different meanings in the different language versions (Ervin & Bower, 1952; Saunders et al., 2009).

3.2.1 Manipulation

To test whether trialability influences perceived risk, and in turn purchase intention, an experiment in form of a scenario with two versions was created. In the beginning of the survey, the respondents were asked to imagine the following scenario:

> "You've come across an offering of a subscription for children's clothes. The subscription costs around SEK 250 (approx. EUR 24) per month and you'll receive 6 clothing items that you may exchange every month or keep as long as they fit your child. When your child needs a different size, you just send back the items and get a new box of clothing items in return. You can choose

> between different styles and different types of boxes, depending on if you want outdoor wear or regular clothes."

The scenario was inspired by two existing subscription and rental services of children's clothing in Sweden: Hyber (n.d.) and Hippat (n.d.). Through the survey tool Qualtrics approximately half of the respondents were randomly allocated to a scenario that, apart from the scenario above, included an additional sentence: *"Furthermore, the company offers a money-back guarantee, where you can send back the box of clothes within two weeks and get your money back if you, for any reason, are not satisfied."* Hence, two different versions of the survey were distributed. The respondents who got the additional text about a money-back guarantee were part of *the treatment group*, while the respondents who did not get the additional text were part of *the control group,* as suggested by Söderlund (2018).

3.2.2 Measurement

All questions related to the independent variables, the moderator, and the dependent variable were measured on a seven-point Likert scale to ensure consistency throughout the survey. These questions have been adapted from earlier studies to ensure the quality of measurements and to be able to make comparisons with previous research (Bell et al., 2019). All measurements are summarised in Table 2. Before the data collection, the measurements were tested in a pilot test. This will be elaborated on in section 3.2.3.

3.2.2.1 Purchase Intention and Switching Intention

Purchase intention was measured with adapted questions from Lee, Jung & Lee (2021, p. 10) (PI 1-2) and Kim, Hye & Lee (2021, p. 12) (PI 3). The phrase "online fashion rental" was changed to "subscription service". For PI 3 (I would like to…) "buy this clothing" was exchanged to "subscribe to this service". The questions about purchase intention and switching intention were placed first in the survey, directly after the scenario, to avoid the respondents being biased by questions about risk and knowledge. In addition, questions about switching intention (SI 1-3) adapted from Hazen, Mollenkopf & Wang (2017, p. 464). were included as an additional measurement of purchase intention. "Laptop" was changed to "children's clothing" and "remanufactured laptop/ product" was changed to "subscription service".

3.2.2.2 Knowledge

The questions regarding knowledge (KNOW 1-6) were adapted from Nepomuceno, Laroche & Richard (2014, p. 622). The word "item" was changed to "this kind of subscription service" to tailor it to the context of our survey. Furthermore, the question regarding knowledge in comparison to experts was not chosen to avoid confusion, as it may be hard for respondents to identify experts within the area of a subscription model for children's clothes. After feedback from the pilot test, the question on information search was clarified to "amount of information search" on a scale from very low to very high. In addition, the question about one's experience with this subscription service (KNOW 3) was removed from the analysis after collecting the answers to improve the Cronbach alpha. This will be elaborated on in section 3.2.2.

3.2.2.3 Perceived Risk

The questions regarding perceived risk (RISK 1-3) were adapted from Laroche et al. (2003, p. 128). The phrasing of the questions was slightly simplified based on feedback from the pilot test.

3.2.2.4 Risk Aversion

To not overwhelm respondents and risk early opt outs, risk aversion scenarios (e.g., Carter & Bao, 2004) were not used to measure risk aversion. Instead, three questions (RIA 1-3) from Lee & Hyun (2016, p. 1882) were adapted. For the first two questions, "travel products" were exchanged for "ways of buying children's clothes" to better fit the area of research. Questions about risk aversion were also placed towards the end of the questionnaire to avoid probing the respondents to think too much about their relationship to risk in the context of the subscription service when answering about purchase intention.

3.2.2.5 Demographic Questions

In addition, seven demographic questions relevant to the research topic were included at the end of the survey with participants' privacy needs kept in mind (Allen, 2017). The reason for placing the demographic questions at the end of the survey was to not skew participants with any of the demographic questions or cause early fatigue in the respondents, thereby increasing the likelihood of them completing the survey (ibid). Data about the respondents' gender, age, number of children, nationality, who buys the majority of the children's clothes, education level and monthly household income was gathered. Data about age was collected by asking the respondents to state their age in years. Later, this was coded into age groups. The household

income in the Swedish language version was denoted in Swedish crowns (SEK) while it was denoted in Euro (€) in the German language version. For simplification purposes, an exchange rate of 10 SEK to 1 EUR was assumed. The purpose of the demographic questions was twofold: first, to make sure that the sample is representative of the wider public and second, to better understand if any of the demographic dimensions affects purchase intention of children's clothing via a subscription service. For example, it could be surmised that in families with many children a smaller amount of new clothes is procured as the younger children can inherit clothes from the older ones. A family's financial situation might also affect the purchasing decision.

3.2.2.6 Control Question

Lastly, a control question, was included to ensure the quality of data (Liu & Wronski, 2018). This is particularly relevant as data were collected online with no control over the respondents. With the added control question the researchers could find out whether the respondents were attentive while filling out the survey. To check for this, the respondents were simply asked to check the box with the number three. Respondents who answered this question wrong were discarded from the data set.

Factors	***Measures***
Purchase intention (Lee & Jung et al 2021, Kim, Hye et al. 2021)	I have an intention to use this subscription service (PI1): Fully Disagree (1) – Fully Agree (7) I am willing to visit the website of this subscription service (PI2): Fully Disagree (1) – Fully Agree (7) I would like to subscribe to this service (PI3): Fully Disagree (1) – Fully Agree (7)
Switching intention (Hazen, Mollenkopf et al. 2017)	For my next clothing purchase for my child… ...I'm considering switching towards a subscription service instead (SI1): Fully Disagree (1) – Fully Agree (7) ... The likelihood of switching to a subscription service is high (SI2): Fully Disagree (1) – Fully Agree (7) ... I'm determined to switch to a subscription service (SI3): Fully Disagree (1) – Fully Agree (7)
Knowledge (Nepomuceno, Laroche et al. 2014)	I use this kind of subscription service (KNOW1): Never (1) – Very often (7) The amount of information search I have performed on this is (KNOW2): Very low (1) – Very high (7)

	I don't have much experience using this kind of subscription service (KNOW3): Fully Disagree (1) – Fully Agree (7) In general, my knowledge of this kind of subscription service is (KNOW4): Very weak (1) – Very strong (7) Would you consider yourself uninformed or informed about this kind of subscription service (KNOW5): Very uninformed (1) – Very informed (7) Compared to my friends and acquaintances, my knowledge of this subscription service is (KNOW6): Weaker (1) – Stronger (7)
Perceived risk (Laroche, Bergeron et al. 2003)	I am sure I will make a mistake if I make this purchase (RISK1): Fully Disagree (1) – Fully Agree (7) I have the feeling that this purchase will cause me trouble (RISK2): Fully Disagree (1) – Fully Agree (7) I am sure that I will incur some risk if I buy this subscription in the next 12 months (RISK3): Fully Disagree (1) – Fully Agree (7)
Risk aversion (Lee & Hyun 2016)	I am cautious trying new/different ways of buying children's clothes (RIA1): Fully Disagree (1) – Fully Agree (7) I would rather stick with the way I usually buy children's clothes than try something I am not very sure of (RIA2): Fully Disagree (1) – Fully Agree (7) I never buy something I don't know about because of the risk of making a mistake (RIA3): Fully Disagree (1) – Fully Agree (7)
Demographical questions	Gender: Female; Male; Other; Prefer not to say Age: Please indicate your age in numbers How many children do you have? 0; Expecting my first child; 1; 2; 3; 4 or more Please state which continent you are from/identify with? Multiple choices are possible: Asia; Africa; North America; South America; Europe; Oceania; Prefer not to say; other (please indicate) Who buys the majority of your child's clothes? Me; the other parent (dad); the other parent (mom); other (please indicate) What best describes your highest level of education? Did not finish high school; high school; higher vocational education; bachelor's degree; graduate degree or higher Please provide your best estimate of your monthly household income before taxes: Less than 2,000 EUR; 2,000 – 4,000 EUR; 4,001 – 60,000 EUR; 6,001 – 8,000 EUR; 8,0001 – 10,000 EUR; 10,001 – 12,000 EUR; Over 12,000 EUR
Control question	This is a control question: please choose the number three below: 1; 5; 3; 7

Table 2: Overview of measurements

3.2.3 Pilot Study and Pre-Test

Before starting the data collection, a pilot test was conducted to make sure that both the measurements, the scale and the survey as a whole were clear and comprehensible (Bell et al., 2019). Furthermore, the pilot test was used to control that the manipulation was strong enough. In addition, the amount of time required to complete the survey was noted to make sure that the survey was not too long to not risk a high amount of early opt-outs (ibid).

The pilot group consisted of a convenience sample of ten parents; five from Sweden and five from Germany to test both language versions of the survey. The purpose of this pilot test was to primarily get feedback on the clarity of the measurements but also to test the manipulation. To get enough data to adequately test the manipulation, a survey only testing the manipulation was distributed to 22 additional respondents.

After feedback from the pilot group, the wording of some questions was changed to make it easier to understand and read. The biggest change was to take away one question regarding the willingness to recommend the subscription service (Lee et al., 2021) and instead switch it to a question about whether the respondents would like to subscribe to the service (Kim et al., 2021). This change was made because several people from the pilot group noted that it was hard to answer about willingness to recommend when they had not tried the service before.

An independent two-tailed t-test was performed in SPSS to check for differences in means between the manipulation group and the control group. For the question “I am sure that I will incur some risk if I buy this subscription in the next 12 months”, the Levene’s test showed p = .620 and equal variances were therefore assumed. The result was not significant, $t(30) = -1.253$, $p = .22$, but the treatment group ($M = 2.80$, $SD = 1.44$) stated a lower perceived risk than the control group ($M = 3.50$, $SD = 1.68$). However, pilot tests are usually not statistically significant at a 5% level as they are often underpowered (Lee, Whitehead, Jacques, & Julious, 2014) due to the small sample size. Since the p-value was still quite low, it was deemed sufficient to carry out the data collection after a slight raise of the price of the subscription service in the scenario to potentially increase the perceived risk of the offer.

3.2.4 Data Collection

The survey was distributed through Swedish and German Facebook groups targeted at parents. Facebook groups were chosen to reach a diverse sample of parents as well as limit any potential effect of researcher intervention. In total, 28 Facebook group administrators were contacted, and 7 allowed the survey to be posted in their groups. Hence, it can be classified as a type of non-probability, convenience sample, which is a popular method for consumer behaviour research (Bell et al., 2019). Data were collected between the 18th and 28th of March. In total 330 responses were received. Out of these, 26 did not complete a majority of the survey and were therefore disregarded. As 3 of the remaining 304 responses failed to answer the control question correctly, a total of 301 valid responses were attained. 244 responses were collected in Swedish Facebook groups and 57 in German Facebook groups (see Table 3). 150 of the respondents were allocated to the manipulation group and 151 to the control group, resulting in a 49.8/50.2 distribution.

Language version	**Total**		**Control group**		**Treatment group**	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Swedish	244	81.1%	120	79.5%	124	82.7%
German	57	18.9%	31	20.5%	26	17.3%
Total	301	100.0%	151	100.0%	150	100.0%

Table 3: Distribution of respondents within the different language versions

To increase the response rate an incentive in the form of donations to a charity organisation for each completed survey was provided (Wolf et al., 2016) (ch. 28). The chosen charity organisation was UNICEF in favour of Ukraine because of the actuality of the Russian invasion of Ukraine during the time of the data collection.

3.2.5 Sample

Data collection and the sampling process largely consist of two stages: establishing the setting of the research conducted and the choice of respondents (Bell et al., 2019). For this study, the context of children's clothes was chosen, and since parents are the main buyers of children's

clothing they were selected as respondents to the survey. Table 4 below describes the characteristics of the sample.

Demographical variable	Total		Control group		Treatment group	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Number of respondents	301	100.00%	151	100.00%	150	100.00%
Gender						
Male	13	4.30%	6	4.00%	7	4.70%
Female	280	93.00%	140	92.70%	140	93.30%
Other	2	0.70%	2	1.30%	0	0.00%
Prefer not to say	5	1.70%	3	2.00%	2	1.30%
Missing value	1	0.30%	0	0.00%	1	0.70%
Age						
Age up to 20 years	1	0.30%	1	0.70%	0	0.00%
21-30	57	18.90%	33	21.90%	24	16.00%
31-40	173	57.50%	87	57.60%	86	57.30%
41-50	47	15.60%	15	9.90%	32	21.30%
51-60	17	5.60%	10	6.60%	7	4.70%
Age 61 years and up	2	0.70%	1	0.70%	1	0.70%
Missing value	4	1.30%	4	2.60%	0	0.00%
Number of children						
0	6	2.00%	2	1.30%	4	2.70%
Expecting my first child	3	1.00%	2	1.30%	1	0.70%
1	93	30.90%	47	31.10%	46	30.70%
2	137	45.50%	78	51.70%	59	39.30%
3	43	14.30%	15	9.90%	28	18.70%
4 or more	18	6.00%	7	4.60%	11	7.30%
Missing value	1	0.30%	0	0.00%	1	0.70%
Education						
Did not finish high school	6	2.00%	2	1.30%	4	2.70%
High school diploma	59	19.60%	30	19.90%	29	19.30%
Higher Vocational Education	42	14.00%	23	15.20%	19	12.70%
Bachelor’s degree	106	35.20%	51	33.80%	55	36.70%
Graduate degree or higher	87	28.90%	44	29.10%	43	28.70%
Missing value	1	0.30%	1	0.70%	0	0.00%
Household monthly income						
Less than 2,000 EUR	17	5.60%	9	6.00%	8	5.30%
2,000 – 4,000 EUR	49	16.30%	24	15.90%	25	16.70%
4,001 – 6,000 EUR	7	25.60%	36	23.80%	41	27.30%
6,001 – 8,000 EUR	79	26.20%	35	23.20%	44	29.30%
8,001 – 10,000 EUR	36	12.00%	20	13.20%	16	10.70%
10,001 – 12,000 EUR	15	5.00%	8	5.30%	7	4.70%
Over 12,000 EUR	13	4.30%	10	6.60%	3	2.00%
Prefer not to say	13	4.30%	8	5.30%	5	3.30%
Missing value	2	0.70%	1	0.70%	1	0.70%

Table 4: Description of sample characteristics

The demographic distribution of the control and treatment group is very similar. Most participants are aged between 31 and 50 years, with the youngest respondent being 18 and the oldest 62 years old. In addition, almost two-thirds of the sample (65.8%) have two or more children, while only 2% stated that they do not have children at all. A bit more than half of the sample has a bachelor's degree or higher, while 14% have a higher vocational education diploma and about 20% have selected high school diploma as the highest level of education. Almost the entire sample has their origin in Europe, although a few respondents (less than 5%) are from Africa, Asia, North America, and South America. Regarding income, about half of the sample has a monthly household income between 4,001 EUR and 8,000 EUR which corresponds to between 40,001 and 80,000 SEK.

When looking at the gender distribution, only 4.3% of the respondents are male while 93% are female, which clearly suggest that the gender distribution is not representative of the population. However, it is similar to the distribution of who buys the majority of the children's clothes. 4.4% of the respondents stated that the father buys a majority of the children's clothes, while 93.9% state that the mother buys a majority of clothes in the household. In addition, a majority of the male respondents stated that the mother or someone else bought most of the children's clothing. Therefore, it can be argued that the sample is representative of who actually makes the purchase of children's clothes and can thus be considered more relevant in this context than a sample with a 50/50 gender distribution.

3.3 Ethical Considerations

To ensure ethical conduct, several measures suggested by Clow & James (2013) were undertaken before sending out the survey. Firstly, for all questions that might be considered sensitive to the respondent (such as gender, origin, and income), a "prefer not to answer" option was provided. In addition, before starting the survey, the respondents were assured that they will remain completely anonymous and that they had the option to opt out whenever they would like to. Furthermore, no personal data such as name, ID number or IP addresses were gathered, which ensured complete anonymity for the respondents. After being informed about their rights and options, all respondents had to consent to their participation and the conditions of the survey by answering a yes/no question in the beginning. For all respondents who chose no, the survey was automatically ended.

3.4 Data Quality

3.4.1 Reliability

Reliability refers to how consistent and accurate the measurements are, which affects the replicability of the study, and is divided into stability, internal reliability, and inter-rater reliability (Bell et al., 2019).

Stability is concerned with whether measurements are stable over time, i.e., if the same results would be yielded if the survey was re-done with the same sample at another point in time in a similar context. However, this is very hard both to test and to establish (Bell et al., 2019). Moreover, a factor such as purchase intention is likely to be affected by the respondent's current financial situation. Therefore, if this changes, the results of the data collection might change as well. Hence, the stability over time in this survey cannot be guaranteed.

Internal reliability is concerned with the consistency of the scale and is tested through Cronbach alpha (see Table 5). The Cronbach alpha is above 0.8 for purchase intention and perceived risk, which is regarded above acceptance levels (Bell et al., 2019; Ursachi et al., 2015). For knowledge, the question "I don't have much experience using this kind of subscription service" (KNOW3) was deleted from further analysis as the exclusion of it raised the Cronbach alpha level to 0.793. During the data collection this question was also reported confusing and unclear by some of the respondents, which further supports the lack of reliability. For risk aversion the Cronbach alpha is 0.669 which is a bit low but still deemed at an acceptable level (Ursachi et al., 2015).

Measurement	**PI**	**SI**	**KNOW**	**RISK**	**RIA**
Cronbach alpha	0.879	0.923	0.793	0.828	0.669

Table 5: Cronbach alpha levels for the different measurements

Inter-rater reliability refers to the consistency in decision-making. For example, if two researchers make subjective decisions about the recording of variables, how to translate data, etc., those decisions might not be consistent (Bell et al., 2019). To avoid a lack of inter-rater reliability, all decisions regarding the data collection, recording and translation have been

discussed between the researchers and were then carried out by the same person throughout the process.

3.4.2 Validity

The four constructs of validity ensure that a study measures what it aims to measure and that the conclusions are accurately drawn. Those constructs are measurement validity, internal validity, external validity, and ecological validity (Bell et al., 2019).

Measurement validity, or construct validity, refers to whether a measurement captures what it is supposed to, e.g., whether the questions about purchase intention truly capture the consumers' purchase intention (Bell et al., 2019). Measurement validity in this survey was ensured by establishing face validity (ibid), as well-established measurements were adapted from earlier research. Therefore, all measures used in this study arguably capture the intended concepts.

Internal validity refers to causality of the relationships between variables, which means whether the variation of the dependent variable can be explained by changes in the independent variable (Bell et al., 2019). Since part of this research has been designed in an experimental setting in which the independent variable was manipulated and the control group and treatment group have similar demographic distribution, internal validity is established. This only applies to the relationship between *trialability* and *perceived risk* and between *trialability* and *purchase intention*. The independent variable *knowledge* was not manipulated, which means that for relationships connected with knowledge, conclusions can only be draw for correlation and not causality.

External validity refers to the generalisation of the study to other contexts (ibid), which means that it is not only valid for those parents found in Facebook groups who have been asked about a children's clothing PSS. Hence, it is important to have a representative sample of the population studied (Bell et al., 2019; Clow & James, 2013). As discussed earlier, the sample was deemed representative in terms of who buys the clothes for their children. Thus, it was considered relevant to study the purchase intention of mothers when looking at children's clothing. However, since the sample was not controlled but dependent on those who chose to answer the survey when posted in different Facebook groups, it is not possible to know whether

those who did not answer differ in substantial ways from those who answered. To decrease this risk and to improve the response rate, an incentive in the form of a charity donation was guaranteed upon completion of the survey. Despite this measurement, the fact that the sample was not randomised can impact the generalisability negatively (Bell et al., 2019). To conclude, even though external validity cannot be completely assured, which is a common pitfall for convenience sampling, it has become a norm within consumer behaviour research (ibid).

Ecological validity refers to the applicability of the study to the real world and depends on the amount of interference of the researchers (Bell et al., 2019). Since the survey was posted on Facebook online – in the respondents' "natural habitat" – and they were able to answer it whenever and wherever they preferred, it is reasonable to assume that the attitudes and opinions they expressed when answering the study correspond to their attitudes and opinions in their daily life. However, since answering a survey might not be a natural part of the respondents' lives, the ecological validity could possibly be affected.

3.4.3 Replicability

Replicability means that it is possible to reproduce the study. To ensure this, the researchers have aimed to extensively explain how the hypotheses were derived in the theory section and meticulously outlined the research design in the method section as well as in the appendices. By following the method described the researchers believe that one should be able to replicate this study and its results (Bell et al., 2019). In addition, multi-scale measures have been adapted from previous research which ensures that those have been successfully tested before and can be replicated.

4 Results

To analyse the gathered data, the statistical software SPSS version 28 by IBM was used. In addition, the SPSS macro PROCESS version 4.0 by Hayes was applied to compute regression analyses for the moderated mediation model. The data transfer to SPSS was not impacted by human interaction since the survey tool Qualtrics automatically generates SPSS files.

4.1 Data Checks

4.1.1 Data Assumptions

Different statistical tests make different assumptions regarding the data used. Hayes (2018) states that the relevant ones for the PROCESS macro are normal distribution, homoscedasticity, and linearity. See Appendix A for outputs of the different tests conducted for verifying assumptions.

Firstly, to test whether the data follow a normal distribution, a Kolmogorov-Smirnov test was conducted. The test results indicated that neither of the variables purchase intention ($D(301) = .115$, $p < .001$), risk aversion ($D(300) = .059$, $p = 0.013$), perceived risk ($D(300) = .104$, $p < .001$) nor knowledge ($D(301) = .105$, $p < .001$) are normally distributed. One reason for this is anchored in the used measurement scale. Despite the ubiquitous claim of many statistic books that commonly used measurement scales meet the assumption of normality, the 7-point Likert scale does not (Hayes, 2018). As this scale has been used in this thesis, this explains why the different measurements are not normally distributed. However, the sample size is considerably larger than 30 which makes it large enough to satisfy the central limit theorem (Newbold et al., 2013). The central limit theorem states that if the sample is large enough, the sum of the variables will be normally distributed even though the variables themselves may not follow a normal distribution. Hence, also the mean of the sample will be approximately normally distributed (Newbold et al., 2013). Therefore, although the Kolmogorov-Smirnov test did not indicate a normal distribution, the variables can still be considered to fulfil the assumption of normal distribution. Thus, a t-test can still be conducted (Newbold et al., 2013). For the PROCESS macro, bootstrapping is used, which does not require an assumption about the distribution as it takes any "irregularity of the sampling distribution" (Hayes, 2018, p. 98) into account. Thereby, it yields more accurate results than the normal theory approach (ibid). Based on this, a moderated mediation analysis using bootstrapping was considered valid to apply for the data analysis.

Secondly, homoscedasticity was investigated through residual scatter plots. The data showed signs of heteroscedasticity, which is common in cross-sectional studies (Frost, 2019). This means that estimates of the coefficients are less precise, and the p-values might be smaller than they really are (ibid). Hence, the size of the identified effect might be slightly off in this study.

Lastly, linearity with the dependent variable *purchase intention* was tested through the SPSS function of testing for linearity. Perceived risk ($p < .001$) and risk aversion ($p < .001$) fulfilled the linearity assumption, but not knowledge ($p = .067$). Trialability was not tested as it per definition fulfils the linear assumption by only consisting of two values. Hayes (2018) states that linear regressions are only an approximation of reality, and when aware of the potential flaws, they can still be suitable for data analysis even though not all assumptions are perfectly met. The advantages of using a well-understood method like linear regression often outweigh the disadvantages of using a more complex and less well-understood one (ibid). To conclude, although the data do not perfectly meet all assumptions, linear regressions were still considered an appropriate analysis tool.

4.1.2 Check for Unintended Manipulation Effect

To verify that the manipulation did not affect the other independent variable *knowledge*, an additional two-tailed independent-sample t-test was conducted where the means of the control group and the treatment group were compared (see Appendix B). The Levene's test showed $p = .357$, therefore equal variances were assumed. Although the control group ($M = 2.55$, $SD = 1.11$) stated a slightly higher knowledge than the treatment group ($M = 2.47$, $SD = 1.03$), the t-test showed no significant effect, $t(299) = -.658$, $p = .511$.

4.2 Hypotheses Testing

Two main analyses were conducted to perform the hypotheses testing: independent t-tests and moderated mediation analyses using the PROCESS macro by Hayes. To corroborate the relationship between perceived risk and purchase intention found in the moderated mediation analysis, a Pearson correlation test was conducted as well. See Table 6 for an overview of the methods used for hypothesis testing. In addition, one-way analyses of variance (ANOVA) models were run to discern potential demographical influences on purchase intention.

Relationship	Hypothesis	Statistical method
Perceived risk and purchase intention	H1: The perceived risk of a CBM has a negative effect on the purchase intention of a CBM.	PROCESS, Pearson Correlation
	H6: A person's level of risk aversion will moderate the relationship between perceived risk and purchase intention of a CBM, where a lower level of risk aversion will increase acceptance of a CBM.	PROCESS
Trialability and perceived risk	H2: Trialability has a negative effect on the perceived risk of a CBM.	T-test, PROCESS
Trialability and purchase intention	H3: Trialability has a positive effect on the purchase intention of a CBM.	T-test, PROCESS
Knowledge and perceived risk	H4: Knowledge has a negative effect on the perceived risk of a CBM.	PROCESS
Knowledge and purchase intention	H5: Knowledge has a positive effect on the purchase intention of a CBM.	PROCESS

Table 6: Overview of the statistical tests conducted for hypothesis testing

4.2.1 Independent-Sample t-Test

To test if there is a significant difference between the means of the variables *perceived risk* and *purchase intention* among the control group and the treatment group two two-tailed independent-sample t-tests were performed (see Appendix C). For both *perceived risk* and *purchase intention*, equal variances were assumed as the Levene's test showed $p = .236$ and $p = .877$, respectively.

Even though the control group ($M = 3.33$, $SD = 1.71$) stated a slightly higher perceived risk than the treatment group ($M = 3.23$, $SD = 1.63$), the overall results for perceived risk showed no significant effect, $t(298) = -.511$, $p = .609$. Consequently, *H3: Trialability has a negative effect on the perceived risk of a CBM* is not supported. It can be concluded that trialability does not decrease perceived risk.

For purchase intention, the effect was not significant either, $t(299) = -0.511$, $p = .610$. The treatment group reported a lower purchase intention ($M = 2.52$, $SD = 1.28$) than the control group ($M = 2.60$, $SD = 1.33$). Thus, it can be concluded that also *H4*: *Trialability has a positive*

effect on the purchase intention of a CBM is not supported. The results therefore suggest that trialability is not an effective practice for improving purchase intention of a circular offering.

4.2.2 Hayes PROCESS Macro

A moderated mediation analysis was run with the full sample (i.e., including both the treatment and control group) to test the theoretical model earlier described in Figure 3 using the PROCESS macro, model 14, for SPSS (Hayes, 2018). As the PROCESS macro does not allow for two independent variables in the same model, two separate models were run: one time with *trialability* as the independent variable and one time with *knowledge* as the independent variable (see Figure 4 and 5).

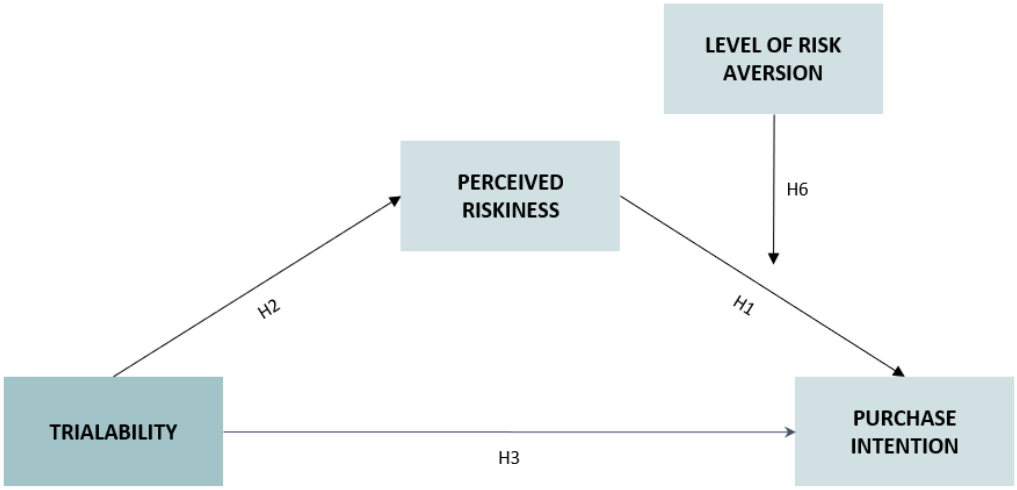

Figure 4: The statistical model (IV: trialability)

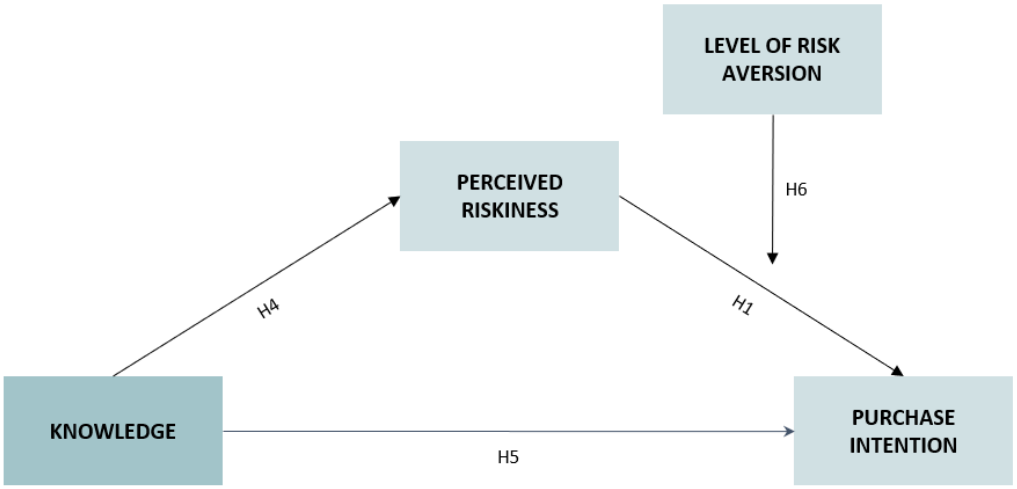

Figure 5: The statistical model (IV: knowledge)

The analysis further combines mediation and moderation to estimate the conditional indirect effect of the moderator *risk aversion* on the relationship between the mediator *perceived risk* and the dependent variable *purchase intention*, which correspond to Hayes' model 14. As described in model 14, the moderator is a second-stage moderator as it effects the relationship between the mediator and the dependent variable (Hayes, 2018). The statistical significance of the direct and indirect effects was evaluated by means of 5,000 bootstrap samples to ensure bias-corrected confidence intervals and account for any non-normality (ibid). The confidence interval was set to 95%.

4.2.2.1 Trialability Model

The first analysis, i.e., the trialability model, assessed (1) the effects of trialability on purchase intention (both directly and indirectly, through perceived risk), (2) the effect of trialability on perceived risk (as moderated by risk aversion), and (3) the effect of perceived risk on purchase intention. See Table 7 for the outputs of the moderated mediation analysis of the trialability model and Figure 6 for illustration.

	coefficient (b)	se	t	p	LLCI	ULCI
Constant	2.6263	0.1027	25.5655	0.0000	2.4241	2.8285
Trialability on Perceived Risk	-0.0985	0.1925	-0.5115	0.6094	-0.4773	0.2804
Trialability on Purchase Intention	-0.0998	0.1383	-0.7215	0.4712	-0.3719	0.1724
Perceived Risk on Purchase Intention	-0.2845	0.0465	-6.1234	0.0000	-0.3759	-0.1930
Risk Aversion on Purchase Intention	-0.0614	0.0524	-1.1714	0.2424	-0.1645	0.0417
Moderation of Risk Aversion	-0.0118	0.0287	-0.4134	0.6796	-0.0683	0.0446

Table 7: Moderated mediation analysis for the trialability model

The results showed that the overall model for explaining purchase intention is statistically significant, $F(4, 295) = 14.425$, $p < .001$, $R^2 = .164$ (see Appendix D). Hence, the model explains 16% of the variance of purchase intention. However, the overall model for explaining perceived risk is not statistically significant, $F(1, 298) = .262$, $p = .609$ $R^2 = .030$.

The PROCESS output corroborates the results of the t-testing of trialability, which did not support *H2: Trialability has a negative effect on the perceived risk of a CBM* and *H3: Trialability has a positive effect on the purchase intention of a CBM*. For the effect on trialability on purchase intention, $b = -.010$, $t(295) = -.722$, $p = .472$ and on perceived risk, $b =$

-.099, $t(298) = -.512$, $p = .609$. Trialability does neither reduce perceived risk of a circular offering nor improve the purchase intention of the same offering.

Furthermore, the test showed that perceived risk has a significant, negative effect on purchase intention, $b = -.285$, $t(295) = -6.123$, $p < .001$. *H1: The perceived risk of a CBM has a negative effect on the purchase intention of a CBM* is thus supported. Decreasing perceived risk of an offering improves a consumer's purchase intention of it. The interaction effect, i.e., the moderating effect of risk aversion on the relationship between perceived risk and purchase intention, on the other hand, is not significant. For an average level of risk aversion, $b = -.012$, $t(295) = -.413$, $p = .680$. Accordingly, *H6: A person's level of risk aversion will moderate the relationship between perceived risk and purchase intention of a CBM, where a lower level of risk aversion will increase acceptance of a CBM* is not supported, as risk aversion does not impact the relationship between perceived risk and purchase intention. Risk aversion is not a moderator, and the moderated mediation is not supported.

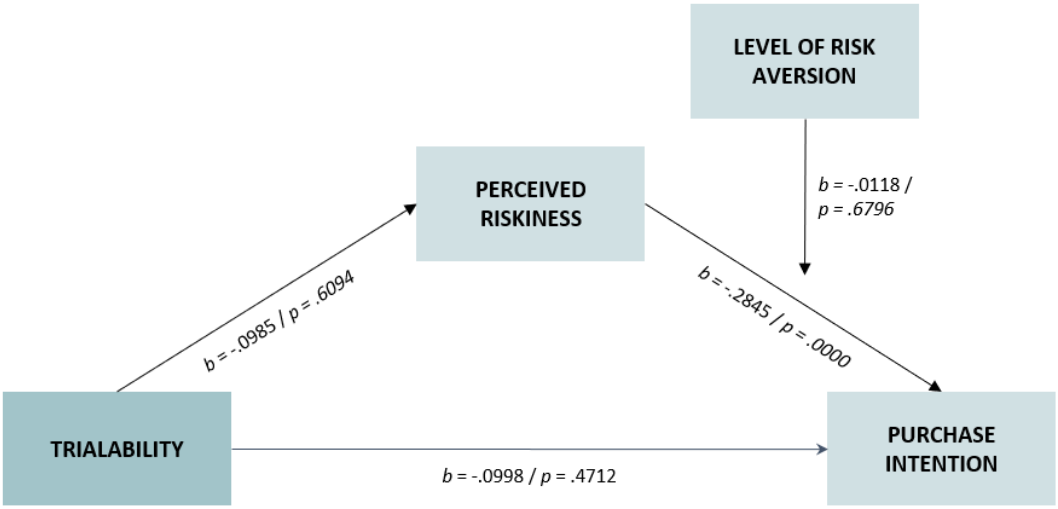

Figure 6: Illustration of the moderated mediation analysis of the trialability model

4.2.2.2 Knowledge Model

The second analysis, i.e., the knowledge model, assessed (1) the effects of knowledge on purchase intention (both directly and indirectly, through perceived risk), (2) the effect of knowledge on perceived risk (as moderated by risk aversion), and (3) the effect of perceived risk on purchase intention. See Table 8 for the outputs of the moderated mediation analysis of the knowledge model and Figure 7 for illustration.

	coefficient (b)	se	t	p	LLCI	ULCI
Constant	2.5029	0.1885	13.2783	0.0000	2.1319	2.8739
Knowledge on Perceived Risk	-0.2256	0.0897	-2.5168	0.0124	-0.4021	-0.0492
Knowledge on Purchase Intention	0.0289	0.0682	0.4238	0.6720	-0.1053	0.1631
Perceived Risk on Purchase Intention	-0.2835	0.0465	-6.1008	0.0000	-0.3750	-0.1921
Risk Aversion on Purchase Intention	-0.0552	0.0543	-1.0161	0.3104	-0.1621	0.0517
Moderation of Risk Aversion	-0.0107	0.0287	-0.3733	0.7092	-0.0672	0.0458

Table 8: Moderated mediation analysis of the knowledge model

The overall model for explaining purchase intention with knowledge as the independent variable is statistically significant, $F(4, 295) = 14.324$, $p < .001$, $R^2 = .163$ (see Appendix D). In other words, 16% of the variance is explained by the model. The overall model for explaining perceived risk is also statistically significant, $F(1, 298) = 6.334$, $p = .012$, $R^2 = .021$, however, only 2% of the variance is explained by it.

Knowledge does not have a significant relationship with purchase intention, $b = .029$, $t(295) = .424$, $p = .672$. Hence *H5: Knowledge has a positive effect on the purchase intention of a CBM* is not supported. Knowledge does not seem to correlate positively with purchase intention, but it does have a significant, negative correlation with perceived risk, $b = -.226$, $t(298) = -2.517$, $p = .012$. Thus, *H4: Knowledge has a negative effect on the perceived risk of a CBM* is supported. An increase in knowledge correlates with a decrease in perceived risk of a circular offering. Since the influence of knowledge was not tested through an experimental design, only inferences about correlations, not causality, can be made.

In addition, just as for the trialability model, the results indicate that perceived risk has a significant, negative effect on purchase intention, b = -.284, t(295) = -6.100, p <.001. The support for *H1: The perceived risk of a CBM has a negative effect on the purchase intention of a CBM* is therefore corroborated. Hence, the results confirm a partial meditation, but not full mediation. The conditional indirect effect of risk aversion was tested across three levels of risk aversion: 1 SD below the mean (low level of risk aversion), at the mean (average level of risk aversion), 1 SD above the mean high level of risk aversion). As zero did not fall between the upper (ULCI) and lower (LLCI) bound of the confidence intervals, the mediating effect of perceived risk was significant at all three levels of risk aversion. See Table 9 for the summarised results of the moderating effect of risk aversion. Furthermore, just as in the trialability model, the interaction effect is not significant in the knowledge model either. For

an average level of risk aversion, b = -.011, $t(295)$ = -.373, p =.709, which shows that *H6: A person's level of risk aversion will moderate the relationship between perceived risk and purchase intention of a CBM, where a lower level of risk aversion will increase acceptance of a CBM* is still not supported.

Risk aversion	Effect	BootSE	BootLLCI	BootULCI
Low level of risk aversion	0.0604	0.0265	0.0136	0.1166
Average level of risk aversion	0.0640	0.0254	0.0162	0.1159
High level of risk aversion	0.0675	0.0270	0.0165	0.1235

Table 9: Conditional effect of perceived risk on purchase intention at different values of risk aversion

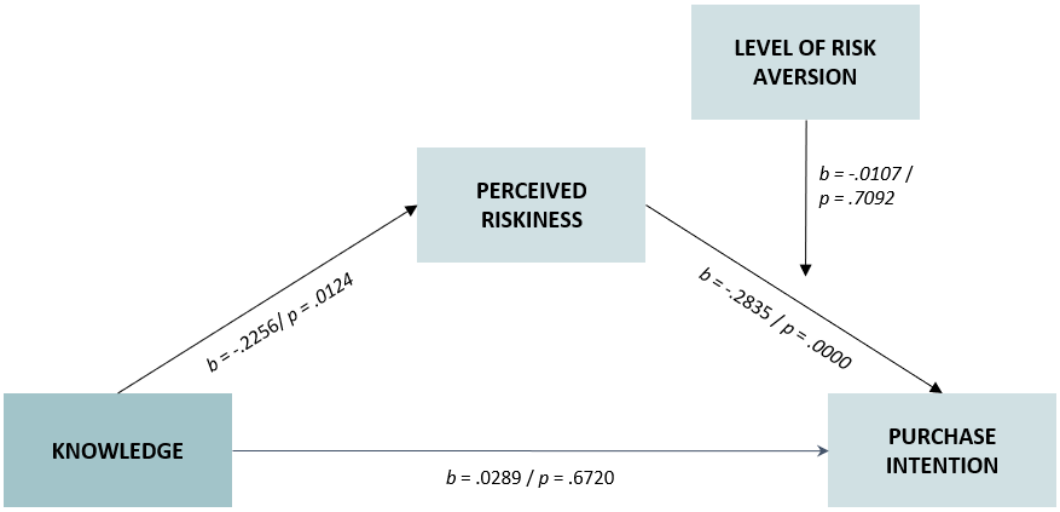

Figure 7: Illustration of the moderated mediation analysis of the knowledge model

4.2.3. Pearson Correlation Test

To verify the correlation between perceived risk and purchase intention in isolation, a Pearson correlation test was performed. The Pearson test was chosen since both perceived risk and purchase intention are measured on a Likert scale and therefore can be considered interval/ratio variables (Bell et al., 2019). The results showed a significantly negative relationship between perceived risk and purchase intention, $r(298)$ = -.397, p < .001. Consequently, H1: *The perceived risk of a CBM has a negative effect on the purchase intention of a CBM* is supported. An increase in the perceived risk correlates with a decrease in purchase intention.

4.2.3 Overview of the Result of the Hypothesis Testing

To summarise, hypotheses H2, H3, H5 and H6 were not supported while hypotheses H1 and H4 were supported (see Table 10).

Relationship	Hypothesis	Hypothesis testing
Perceived risk and purchase intention	H1: The perceived risk of a CBM has a negative effect on the purchase intention of a CBM.	Supported
	H6: A person's level of risk aversion will moderate the relationship between perceived risk and purchase intention of a CBM, where a lower level of risk aversion will increase acceptance of a CBM.	Not Supported
Trialability and perceived risk	H2: Trialability has a negative effect on the perceived risk of a CBM.	Not Supported
Trialability and purchase intention	H3: Trialability has a positive effect on the purchase intention of a CBM.	Not Supported
Knowledge and perceived risk	H4: Knowledge has a negative effect on the perceived risk of a CBM.	Supported
Knowledge and purchase intention	H5: Knowledge has a positive effect on the purchase intention of a CBM.	Not Supported

Table 10: Summary of hypothesis testing

4.3 Additional Analyses

To identify if, and how, different demographical factors correlate with purchase intention of a children's clothing PSS, four one-way analyses of variance (ANOVA) and a t-test were run. For the result of the ANOVAs that were significant at a 5% level, also post hoc comparisons were conducted. The analyses were conducted for the demographical variables *age groups*, *number of children*, *level of income*, *household income* and *language version*. *Gender*, *origin* and *who buys a majority of the children's clothing* were not included because of the skewness of the sample. Over 90% belonged to one category in these cases. Since there are only two language versions, a t-test was conducted instead of an ANOVA for this demographical variable.

To satisfy the central limit theorem with group sizes of n > 30 (Newbold et al., 2013), some demographical variables were recoded into larger groups and some respondents were excluded. See Appendix F for overview of the group distribution. Because of the differences in group sizes, a Levene's test was conducted for each demographical variable. For those variables where equal differences were not assumed, the Welch ANOVA was applied and for post hoc comparisons the Games-Howell test was used instead of Tukey HSD. See Appendix G for results of the t-test, Levene's test, ANOVA tables and post hoc comparisons tables. Although measurements have been taken to produce as accurate results as possible, because of the relatively small group sizes and the differences in group sizes, these results should only be seen as indicators and not definite conclusions.

A two-tailed independent t-test was conducted to test the differences of average purchase intention between the German and Swedish language versions. Equal variances were not assumed as the Levene's test showed $p < .001$. The test showed that German participants (M = 3.49, SD = 1.71) stated a statistically significant higher purchase intention than Swedish respondents (M = 2.34, SD = 1.08), $t(66.7) = -4.833$, $p < .0001$.

The Welch's ANOVA results showed that there is a no statistically significant difference in purchase intention between age groups, $F_W(2, 55.544) = 2.293$, $p = .110$. The Welch's ANOVA comparing purchase intention within different income levels did not detect any statistically significant difference between income levels either, $F_W(3, 152.106) = 1.160$, $p = .327$.

The Welch's ANOVA conducted to compare the effect of highest level of education on purchase intention indicated that there is a statistically significant difference between at least two different education levels, $F_W(3, 132.083) = 3.364$, $p = .021$. The post hoc comparison using the Games-Howell test showed that purchase intention is significantly higher among respondents with a high school education, (M = 3.05, SD = 1.51), compared to respondents with a higher vocational education (M = 2.31, SD = 1.01) $p = .020$, and compared to respondents with a bachelor's degree (M = 2.40, SD = 1.18), $p = .027$. There were no other significant differences.

Lastly, a one-way ANOVA was conducted for testing whether there is a difference in purchase intention depending on how many children one has. The result showed that the difference in purchase intention depending on the number of children is statistically significant between at

least two groups at a 10% significance level, $F(2, 288) = 2.488$, $p = .085$. Post-hoc comparisons using the Tukey HSD revealed that, at a 10% significance level, purchase intention was higher for respondents with one child ($M = 2.77$, $SD = 1.29$) compared to two children ($M = 2.42$, $SD = 1.25$) $p = .096$. There was no significant difference for respondents with three or more children ($M = 2.41$, $SD = 1.25$).

5 Discussion

5.1 General Discussion

As only one type of CBM, namely a PSS, was studied in this thesis, the explanatory power of the developed conceptual model and the generalisability of how it may affect other types of CBMs are limited. Nevertheless, the data analysis revealed some interesting findings, implications, and areas of future research.

5.1.2 Low Purchase Intention and Attractiveness of CBMs

The results revealed that purchase intention was very low in both the control ($M = 2.60$) and the treatment group ($M = 2.52$), which confirms earlier findings that consumer acceptance is one of the barriers towards the success of CBMs (Baines et al., 2007; Camacho-Otero et al., 2017). Although the purchase intention was slightly higher in the control group than in the treatment group, there was no significant difference between the groups. Hence, the participants seem to perceive the offering with trialability and the offering without trialability as equally (un)attractive. Consequently, the results might suggest a general lack of attractiveness of such a circular model.

This could potentially be explained by certain prevailing norms in the society. For instance, studies by Lee et al. (2021) and Lang et al. (2019) point out that consumers may worry about how the use of second-hand or fashion rental clothes affects their social image, especially if they care a lot about other people's opinion. For example, ownership may be seen as a status symbol, and not owning might then imply that these consumers cannot afford to do so, which could damage their social status (Lang et al., 2019). Considering the specific case of this study, Pynt Andersen et al. (2007) suggest that a mother's consumption is shaped by views on what makes a *good* versus a *bad* mother. In their study, they conclude that consumption of children's

clothing is a “very important category of expressing the mothers’ identity, their ideal of motherhood” (p. 95) which impacts the mother’s role in society (Pynt Andersen et al., 2007). If mothers think that not buying new clothes for their children could negatively impact their social image and role as a mother, this could potentially explain the lack of interest in the proposed PSS. However, based on this research, no concrete conclusions can be drawn about this phenomenon.

Another potential explanation could be the lack of visualization and interaction resulting from the rather short, only text-based scenario included in the study. This was chosen to prevent any potential intervention of visual cues on the effect tested. Yet, looking at the website of Hippat (n.d.) and Hyber (n.d.), two existing children’s clothes subscription models, consumers can e.g., see pictures of the items offered and click on their choices, which might increase the attractiveness of such an offering. This is supported by Schnurr et al. (2017) who state that items which are unfamiliar to the consumer will be perceived more attractive when placed in an attractive visual context. In addition, they found that a higher product attractiveness directly translates to higher purchase intentions (Schnurr et al., 2017). Although circular economy is not something new in the academic world, most circular offerings are still considered a newness by many consumers. Thus, the low attractiveness of the context through the survey design might have negatively impacted the purchase intention of respondents.

5.1.1 Effects of Trialability and Knowledge

The result of this study indicated that trialability is neither an effective practice for improving purchase intention nor for decreasing risk, as no effect of trialability was found for either of them. This contrasts the findings by Boshoff (2002) who states that service guarantees reduce perceived risk. Given that this paper was published 20 years ago, the context of shopping has drastically changed since then. A possible explanation could therefore be that today’s changed shopping landscape, with e-commerce being more prominent than ever before (Statista, 2022a), requires other types of practices to efficiently reduce risk. Moreover, the purchase intention was low for both groups, which implies that the possibility to change one’s mind does not matter in the participants’ purchase decision. The low attractiveness of the presented offer can potentially explain why there was no significant effect of trialability on purchase intention. It is reasonable to think that someone who does not find the offer attractive, also is not interested

in trying it even if a possibility for a refund is available. Thus, it cannot be ruled out that trialability might influence purchase intention of a more attractive offering.

Knowledge, on the other hand, was found to be negatively correlated with perceived risk, as indicated by earlier research (Cox, 1967; Murray & Schlacter, 1990), but did not display a relationship with purchase intention. This could be connected to the innovation-decision process framework (Rogers, 2003), where knowledge is the first step in the process but not the actual trigger of the (purchase) decision. Knowledge needs to be present for consumers to develop a positive or negative attitude toward the innovation, yet knowledge alone will not result in a favourable purchase decision. This is because knowledge is just the first stage in which a consumer "is exposed to an innovation's existence and gains an understanding of how it functions" (Rogers, 2003, p. 171). After gaining the knowledge about a new offering, characteristics such as relative advantage, compatibility, complexity, trialability, and observability play an important role in consumers' decisions of whether or not to adopt an innovation (Rogers, 2003). Furthermore, although knowledge reduces uncertainty (Rogers, 2003), it does not necessarily imply that the benefits of an offering outweigh the drawbacks – it just means that those consumers who are more knowledgeable are more aware of benefits and drawbacks and therefore can make a more informed decision.

5.1.3 Low Perceived Risk of CBMs

The results indicated that the mean perceived risk of the PSS was low (for control group M = 3.33, for treatment group M = 3.23). Since perceived risk was measured on a seven-point Likert scale from "Fully Disagree" to "Fully Agree", choosing number 4 would imply that participants believe it is neither risky nor safe. Consequently, the participants, on average, perceived the offer as more safe than risky. This is interesting, since Rexfelt & Hiort af Ornäs (2009) suggest that perceived risk depends on the possibility to change one's mind and alter the decision after the purchase. This was possible for the treatment group, but not for the control group. The implications of this are uncertain. While it could imply that subscription models for children's clothes are not perceived risky in general, it could also mean that the design of the hypothetical offering used for this study was not risky enough. Even though low perceived risk was indicated already during the pilot-test, the researchers decided not to increase perceived risk substantially to keep the scenario as close to reality as possible. For this reason, the results more likely indicate that subscription of children's clothes is not very risky, and that risk is not the main

barrier towards consumer acceptance of this particular PSS. One potential reason for this could be the context and format of how the PSS was presented. For instance, the risk might have been perceived as lower because the respondents knew that the offer was not “real” or because they in general feel safe buying new things online. However, since no data was collected regarding this, no definite conclusions can be drawn.

Despite the overall low risk, the results showed that perceived risk negatively influences purchase intention of the circular offering. This implies that lowering perceived risk could still be a mean to improve purchase intention of CBMs. This confirms earlier findings by Chang et al. (2016), Chen & Chang (2012) and Cozzarin & Dimitrov (2015) while it contradicts the findings by Liao, Hu et al. (2021). Yet, since both perceived risk and purchase intention for the PSS in this study were low, this suggests that a minimisation of perceived risk might not be enough to improve purchase intention. It is questionable whether a further reduction of perceived risk would lead to a considerably increase in purchase intention or not. This confirms once more that most likely the main barrier toward consumer acceptance of PSSs is not perceived risk, but there are other factors of greater importance.

Moreover, this study indicated that risk aversion is not a moderator of the relationship between perceived risk and purchase intention. This could potentially be explained by the measurement scales used for risk aversion. While it is quite common to use different scenarios (Carter & Bao, 2004), one could also use laboratory gambling to identify risk aversion (Holt & Laury, 2002). However, to keep the survey short and not risk respondent fatigue, risk aversion was instead measured by three short self-reporting questions earlier tested by Lee & Hyun (2016). It is, however, possible that these questions were not an adequate way to capture a person’s risk aversion, as people tend to underestimate their risk aversion when facing hypothetical scenarios (Holt & Laury, 2002).

5.1.4 Demographical Implications

The analyses on demographical variables also provided some interesting implications, where some of them could be used as starting points for further research. First, the analysis indicated that purchase intention might be correlated with number of children. This could be explained by the fact that families with many children can develop their own “circular system” where the younger kids inherit clothes from the older ones. Thus, there is a reduced need to purchase new

clothes for the youngest child while the benefit of renting is lower, too, because when renting clothes, they cannot be re-used within the family.

Secondly, the results of the analysis indicated that purchase intention in general is higher among people with only a high school diploma compared to people with a bachelor's degree or a higher vocational education diploma. This speaks against other studies which have found a positive correlation between sustainable consumption and higher education (Chekima et al., 2016; Straughan & Roberts, 1999). There are, however, limitations to the explanatory power of the "green consumer" stereotype according to Pedersen & Neergard (2006), who write that "[c]onclusions about values, attitudes and behaviour cannot automatically be deduced from a simple set of background variables" (p. 20). Purchase intention for green products can for example vary with type of product, purpose of the procurement, current financial situation, and the manufacturer of the product (ibid). The indication that people with a lower education might possess a higher purchase intention for the tested PSS than people with, for example, a bachelor's degree should therefore be considered cautiously, as this may not be valid for other types of products and situations.

Lastly, purchase intention differed among respondents in Germany and in Sweden, as Germans displayed a higher purchase intention. This could be a result of the translations of the survey questions for the Swedish and German version, as translations always bear the risk of not conveying identical meanings. It could, however, also be a result of differences in culture, habits, and values, as consumer behaviour, for instance, is affected by cultural settings (de Mooij & Hofstede, 2011). Since cultural differences were not covered by this research, it could be a potentially interesting subject to look into in the future.

5.2 Theoretical Contributions

The aim of this thesis was to contribute to closing the research gap of consumer acceptance identified in the literature review by linking CBM studies with consumer and marketing research through innovation theory. It was concluded that there is a lack of research on (1) consumer acceptance, (2) practices companies can perform to improve consumer acceptance of CBMs and (3) PSSs. In addition, it was noted that most research on consumer acceptance of CBMs has been conducted in Asian countries. Correspondingly, this research provides insights on knowledge and trialability as means to decrease perceived risk and improve purchase

intention within a European context. The findings corroborate earlier research that emphasises the issue of low consumer adoption of CBMs (Bücker et al., 2021) and conclude that neither trialability nor knowledge are viable means to improve purchase intention. Based on earlier research, it was theorised that one of the barriers for consumer acceptance of CBMs is perceived risk, yet the results of this research indicate that perceived risk of the PSS in the study is low. Therefore, it is suggested that the main barrier for consumer acceptance is likely something else than risk. To conclude, future research might need to steer into a different direction than perceived risk and trialability to increase the understanding of how to improve consumer acceptance of CBMs.

5.3 Practical Implications

The results of this study confirm the low consumer acceptance of CBMs. Hence, managers within marketing and product development need to continue to find solutions to this pressing issue. However, trialability in the form of a customer satisfaction guarantee is not the most efficient way to improve purchase intention of the studied PSS. Rather, marketing managers should explore other practices, not necessarily related to risk, to make their circular offerings more attractive and improve purchase intention. For the particular CBM studied, risk was not the main barrier to purchase intention, yet risk is still an important consideration for more risky offerings as risk decreases purchase intention. To decrease risk, managers could focus on knowledge practices such as information campaigns and labels. However, as different knowledge practices were not within the scope of this study, no conclusion regarding them can be drawn. Therefore, it is important for managers to understand the full implications of a (knowledge) practice before implementing it, as it can have other positive or negative effects on purchase intention than only decreasing perceived risk. To conclude, marketing managers should focus on identifying other practices than trialability to improve purchase intention, and although risk should not be the focus, it should, just as knowledge, not be entirely neglected when promoting a circular offering.

5.4 Limitations and Suggestions for Further Research

This paper does not intend to be conclusive, but it rather brings attention to the consumer side of CBMs and how companies can increase consumer acceptance through practices that overcome barriers of acceptance. The limitations of this thesis also reflect opportunities for future research within the context of the circular economy.

Firstly, this thesis focused only on PSSs, more specifically a rental subscription model for children's clothes. As discussed in the introduction, this is a highly relevant part of the fashion industry where CBMs can make a difference, yet this is neither the only CBM within the fashion industry nor the only the only part of the fashion industry where CBMs can be relevant. In addition, this study focused on parents as they are the main buyers of children's clothes. Therefore, further research on other types of CBMs within fashion and other customer groups could reveal important findings.

Secondly, this thesis was limited to Europe, in particular Sweden and Germany. As consumer behaviour and acceptance can widely vary across continents and countries (de Mooij & Hofstede, 2011) and this study indicated that there might be a difference in purchase intention of CBMs between Germany and Sweden, the tested model could be replicated in other cultural settings, too. This could potentially increase the generalisability of the findings.

Thirdly, both the perceived risk and purchase intention were low in this study. Further research could therefore investigate whether the low risk is something inherent in all CBMs, only PSSs, or whether it was a result of the design of this study. In addition, it could be interesting to further research reasons for how to improve the attractiveness of CBMs. For this purpose, research should also examine consumer behaviour through qualitative research to better understand consumers' reasons for finding CBMs unattractive. Revealing the reasons can help to better find and target practices to increase consumer acceptance and improve circular offerings accordingly. Finding solutions to those issues is particularly important in the light of the ongoing climate crisis that harms our planet, ourselves, and the lives of future generations.

Lastly, this study does not take actual behaviour into account, but only behavioural intentions. Although most consumers are concerned about the planet, realise the importance of sustainable consumption, and are willing to consume more environmentally friendly products, their actual consumption behaviour does show little evidence of this (Bray et al., 2011). This phenomenon is referred to as *intention-behaviour gap* in the literature and is not only researched in the context of circular economy but also in other contexts concerning consumer acceptance (e.g., (de Aguiar Hugo et al., 2021; Qi et al., 2020; Rhodes & de Bruijn, 2013). The intention-behaviour gap can be defined as "widely reported misalignment between consumers' reported attitudes/intentions and their actual behavior" (Georgantzis Garcia et al., 2021). Thus, also

consumer behaviour needs to be studied. Since this thesis shows that trialability does not improve purchase intention of PSSs, researchers should focus on finding other practices that might increase purchase intention and eventually adoption of CBMs to foster more sustainable consumption.

6 Conclusion

This study contributes to closing the research gap of consumer adoption of CBMs by answering the research questions: (1) *Can trialability decrease perceived risk and increase purchase intention of a CBM?* (2) *Can knowledge decrease perceived risk and increase purchase intention of a CBM?* These questions were answered within the context of a children's clothing PSS. The results show that knowledge is negatively correlated with perceived risk while trialability does not have an impact on it. Furthermore, neither trialability nor knowledge have a positive effect on purchase intention. This implies that trialability as a practice to reduce risk and consequently increase purchase intention does not work. Hence, other practices than trialability need to be tested to find appropriate ones. Knowledge, however, can be considered for decreasing risk, which in turn showed to have a positive impact on purchase intention. Yet, the low degree of both perceived risk and purchase intention in this study indicate that perceived risk is not the major obstacle for improving purchase intention. Rather does the low purchase intention among the sample confirm the prevailing issue of low consumer acceptance of the PSS tested in this study. This further emphasizes that studies on how to improve purchase intentions of CBMs are needed to foster a more sustainable lifestyle and slow down or reverse some of the most pressing global issues caused by the prevailing consumption model. Thus, based on the results of this study, further research should explore other practices and barriers of purchase intention of CBMs to support the transition to a circular economy.

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Appendices

Appendix A

Table A1: Test of normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
Variable	Statistic	df	Sig.	Statistic	df	Sig.
Purchase Intention	0.115	301	0.000	0.918	301	0.000
Knowledge	0.105	301	0.000	0.945	301	0.000
Perceived Risk	0.104	300	0.000	0.942	300	0.000
Risk Aversion	0.059	300	0.013	0.980	300	0.000

Figure A1: Scatterplot for identifying heteroscedasticity

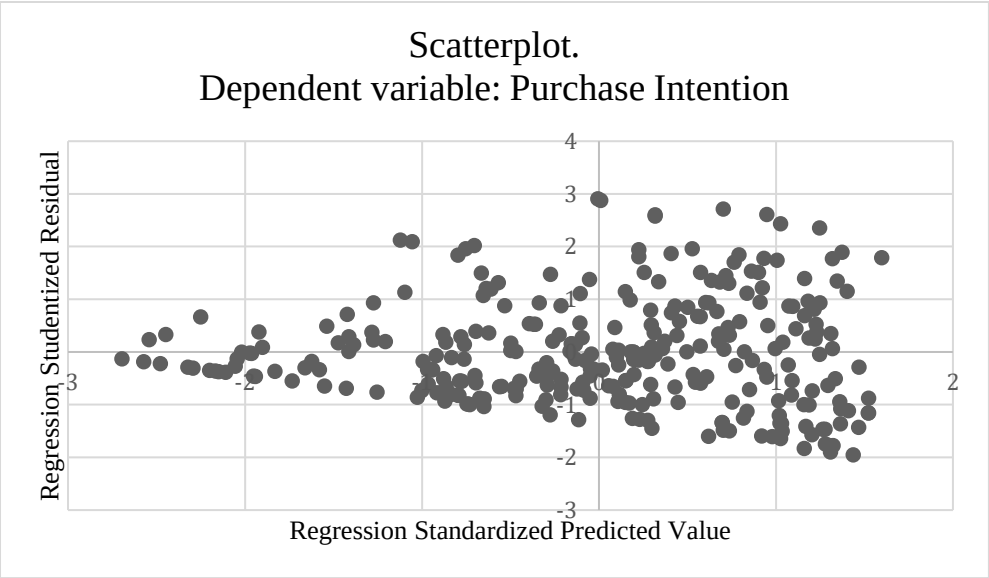

Table A2: ANOVA table for linearity tests

			Sum of Squares	df	Mean Square	F	Sig.
Knowledge * Purchase Intention	Between Groups	(Combined)	63.210	32	1.975	1.904	0.003
		Linearity	3.513	1	3.513	3.387	0.067
		Deviation from Linearity	59.697	31	1.926	1.857	0.005
	Within Groups		277.971	268	1.037		
	Total		341.181	300			
Perceived Risk * Purchase Intention	Between Groups	(Combined)	205.812	32	6.432	2.756	0.000
		Linearity	130.666	1	130.666	55.983	0.000
		Deviation from Linearity	75.146	31	2.424	1.039	0.416
	Within Groups		623.182	267	2.334		
	Total		828.994	299			
Risk Aversion * Purchase Intention	Between Groups	(Combined)	89.788	32	2.806	1.343	0.111
		Linearity	34.580	1	34.580	16.546	0.000
		Deviation from Linearity	55.208	31	1.781	0.852	0.695
	Within Groups		558.028	267	2.090		
	Total		647.816	299			

Appendix B

Table B1: Descriptives for t-test (unintended manipulation effect)

Dependent variable	Trialability group	N	Mean	Std. Deviation	Std. Error Mean
Knowledge	Treatment group	150	2.4673	1.02770	0.08391
	Control group	151	2.5483	1.10549	0.08996

Note: The table describes statistics for how respondents within the treatment group and the control group have stated their level of knowledge.

Table B2: Independent sample t-test (unintended manipulation effect)

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
Knowledge	Equal variances assumed	0.851	0.357	-0.658	299	0.255	0.511	-0.08101	0.12305	-0.32317	0.16115
	Equal variances not assumed			-0.659	297.696	0.255	0.511	-0.08101	0.12302	-0.32312	0.16109

Appendix C

Table C1: Descriptives for t-test (hypothesis testing)

Dependent variable	Trialability group	N	Mean	Std. Deviation	Std. Error Mean
Purchase Intention	Treatment group	150	2.5204	1.27680	0.10425
	Control group	151	2.5971	1.32628	0.10793
Perceived Risk	Treatment group	149	3.2327	1.62502	0.13313
	Control group	151	3.3311	1.70772	0.13897

Note: The table describes statistics for how respondents within the treatment group and the control group have stated purchase intention and perceived risk.

Table C2: Independent sample t-test (hypothesis testing)

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
Purchase Intention	Equal variances assumed	0.024	0.877	-0.511	299	0.305	0.610	-0.07669	0.15008	-0.37203	0.21865
	Equal variances not assumed			-0.511	298.707	0.305	0.610	-0.07669	0.15006	-0.37199	0.21862
Perceived Risk	Equal variances assumed	1.412	0.236	-0.511	298	0.305	0.609	-0.09846	0.19251	-0.47732	0.28039
	Equal variances not assumed			-0.512	297.609	0.305	0.609	-0.09846	0.19245	-0.47719	0.28027

Appendix D: Hayes PROCESS macro, overall model for dependent variable purchase intention

Independent variable	Model explaining outcome variable	R	R square	MSE	F	df1	df2	p
Trialability	Purchase intention	0.4045	0.1636	1.4311	14.4252	4.0000	295.0000	0.0000
	Perceived risk	0.0296	0.0009	2.7794	0.2616	1.0000	289.0000	0.6094
Knowledge	Purchase intention	0.4033	0.1626	1.4328	14.3235	4.0000	295.0000	0.0000
	Perceived risk	0.1443	0.0208	2.7240	6.3340	1.0000	298.0000	0.0124

Appendix E: Pearson Correlation Table

		Purchase Intention	Perceived Risk
Purchase Intention Total	Pearson Correlation	1	-.397**
	Sig. (2-tailed)		0.000
	N	301	300
Perceived Risk Total	Pearson Correlation	-.397**	1
	Sig. (2-tailed)	0.000	
	N	300	300

** Correlation is significant at the 0.01 level (2-tailed).

Appendix F

Table F1: Frequency table for language version

Language	Frequency	Percent
Swedish version	244	81.1
German version	57	18.9
Total	301	100.0

Table F2: Frequency table for age groups

Age	Frequency	Percent
Up to 29 years	38	12.6
30 to 44 years	226	75.1
45 years and up	33	11.0
Missing value	4	1.3
Total	301	100.0

Table F3: Frequency table for income levels

Income in (EUR)*	Frequency	Percent
Less than 4,000	66	22.9
4,001 - 6,000	77	26.7
6,001 - 8,000	79	27.4
Over 8,000	64	22.2
Missing value	2	0.7
Total	288	100.0

* 13 participants were excluded (those who answered “Prefer not to say”)

Table F4: Frequency table for education levels

Highest education level*	Frequency	Percent
High school diploma	59	20.0
Higher vocational education	42	14.2
Bachelor's degree	106	35.9
Graduate degree or higher	87	29.5
Missing value	1	0.3
Total	295	100.0

* 6 participants were excluded (those who answered “Did not finish high school”)

Table F5: Frequency table for number of children

Number of children	Frequency	Percent
1 child	93	31.8
2 children	137	46.9
3 children or more	61	20.9
Missing value	1	0.3
Total	292	100.0

* 9 participants were excluded (those who answered “0 kids” and “Expecting my first child”)

Appendix G

Table G1: Descriptives for language version

Dependent variable	Language	N	Mean	Std. Deviation	Std. Error Mean
Purchase Intention	Swedish version	244	2.3419	1.07797	0.06901
	German version	57	3.4877	1.71220	0.22679

Note: The table describes statistics for how respondents within the different language groups have stated purchase intention.

Table G2: Independent sample t-test for language version

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
Purchase Intention	Equal variances assumed	41.826	0.000	-6.373	299	0.000	0.000	-1.14578	0.17978	-1.49958	-0.79198
	Equal variances not assumed			-4.833	66.719	0.000	0.000	-1.14578	0.23705	-1.61898	-0.67258

Table G3: Levene's test

Dependent variable	Independent variable		Levene Statistic	df1	df2	Sig.
Purchase Intention	Age groups	Based on Mean	10.666	2	294	0.000
		Based on Median	9.032	2	294	0.000
		Based on Median and with adjusted df	9.032	2	290.956	0.000
		Based on trimmed mean	10.464	2	294	0.000
	Income levels	Based on Mean	2.933	3	282	0.034
		Based on Median	2.227	3	282	0.085
		Based on Median and with adjusted df	2.227	3	268.319	0.085
		Based on trimmed mean	2.818	3	282	0.039
	Education levels	Based on Mean	4.348	3	290	0.005
		Based on Median	3.188	3	290	0.024
		Based on Median and with adjusted df	3.188	3	263.594	0.024
		Based on trimmed mean	4.160	3	290	0.007
	Number of children	Based on Mean	0.589	2	288	0.555
		Based on Median	0.413	2	288	0.662
		Based on Median and with adjusted df	0.413	2	286.303	0.662
		Based on trimmed mean	0.612	2	288	0.543

Dependent variable: purchase intention		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean Lower Bound	Upper Bound	Minimum	Maximum
Age groups	Up to 29 years	38	2.6579	1.21053	0.19637	2.2600	3.0558	1.00	6.00
	30 to 44 years	226	2.4696	1.22754	0.08165	2.3087	2.6305	1.00	6.17
	45 years and up	33	3.1192	1.76661	0.30753	2.4928	3.7456	1.00	6.17
	Total	297	2.5659	1.30701	0.07584	2.4166	2.7151	1.00	6.17
Income in (EUR)	Less than 4,000	66	2.7020	1.50029	0.18467	2.3332	3.0708	1.00	6.17
	4,001 - 6,000	77	2.3831	1.13202	0.12901	2.1262	2.6401	1.00	6.17
	6,001 - 8,000	79	2.7042	1.26851	0.14272	2.4201	2.9884	1.00	5.83
	Over 8,000	64	2.5380	1.29465	0.16183	2.2146	2.8614	1.00	6.00
	Total	286	2.5801	1.29791	0.07675	2.4290	2.7311	1.00	6.17
Highest education level	High school diploma	59	3.0497	1.50683	0.19617	2.6570	3.4424	1.00	6.17
	Higher vocational education	42	2.3095	1.01183	0.15613	1.9942	2.6248	1.00	5.17
	Bachelor's degree	106	2.4041	1.17580	0.11420	2.1776	2.6305	1.00	6.00
	Graduate degree or higher	87	2.5609	1.39124	0.14916	2.2644	2.8574	1.00	6.00
	Total	294	2.5666	1.31237	0.07654	2.4159	2.7172	1.00	6.17
Number of children	1 child	93	2.7688	1.29334	0.13411	2.5025	3.0352	1.00	6.17
	2 children	137	2.4153	1.25371	0.10711	2.2035	2.6271	1.00	6.17
	3 children or more	61	2.4098	1.25446	0.16062	2.0886	2.7311	1.00	6.00
	Total	291	2.5271	1.27314	0.07463	2.3803	2.6740	1.00	6.17

Table G5: Robust tests of equality of means, using Welch's ANOVA

	Statistic[a]	df1	df2	Sig.
Age groups	2.293	2	55.544	0.110
Income levels	1.160	3	152.106	0.327
Education levels	3.364	3	132.083	0.021

a. Asymptotically F distributed.

Table G6: ANOVA table for number of children

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7.984	2	3.992	2.488	0.085
Within Groups	462.074	288	1.604		
Total	470.058	290			

Table G7: Post-hoc comparisons using Games-Howell for education levels

					95% Confidence Interval	
Highest education level (I)	Highest education level (J)	Mean Difference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
High school diploma	Higher vocational education	0.74019*	0.25072	0.020	0.0850	1.3954
	Bachelor's degree	0.64563*	0.22699	0.027	0.0523	1.2389
	Graduate degree or higher	0.48880	0.24644	0.200	-0.1534	1.1310
Higher vocational education	High school diploma	-0.74019*	0.25072	0.020	-1.3954	-0.0850
	Bachelor's degree	-0.09456	0.19344	0.961	-0.6013	0.4121
	Graduate degree or higher	-0.25140	0.21593	0.651	-0.8149	0.3121
Bachelor's degree	High school diploma	-0.64563*	0.22699	0.027	-1.2389	-0.0523
	Higher vocational education	0.09456	0.19344	0.961	-0.4121	0.6013
	Graduate degree or higher	-0.15683	0.18786	0.838	-0.6443	0.3306
Graduate degree or higher	High school diploma	-0.48880	0.24644	0.200	-1.1310	0.1534
	Higher vocational education	0.25140	0.21593	0.651	-0.3121	0.8149
	Bachelor's degree	0.15683	0.18786	0.838	-0.3306	0.6443

Table G8: Post-hoc comparisons using Tukey HSD for number of children

Number of children (I)	Number of children (J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1 child	2 children	0.35349	0.17019	0.096	-0.0474	0.7544
	3 children or more	0.35898	0.20870	0.199	-0.1327	0.8506
2 children	1 child	-0.35349	0.17019	0.096	-0.7544	0.0474
	3 children or more	0.00549	0.19497	1.000	-0.4538	0.4648
3 children or more	1 child	-0.35898	0.20870	0.199	-0.8506	0.1327
	2 children	-0.00549	0.19497	1.000	-0.4648	0.4538