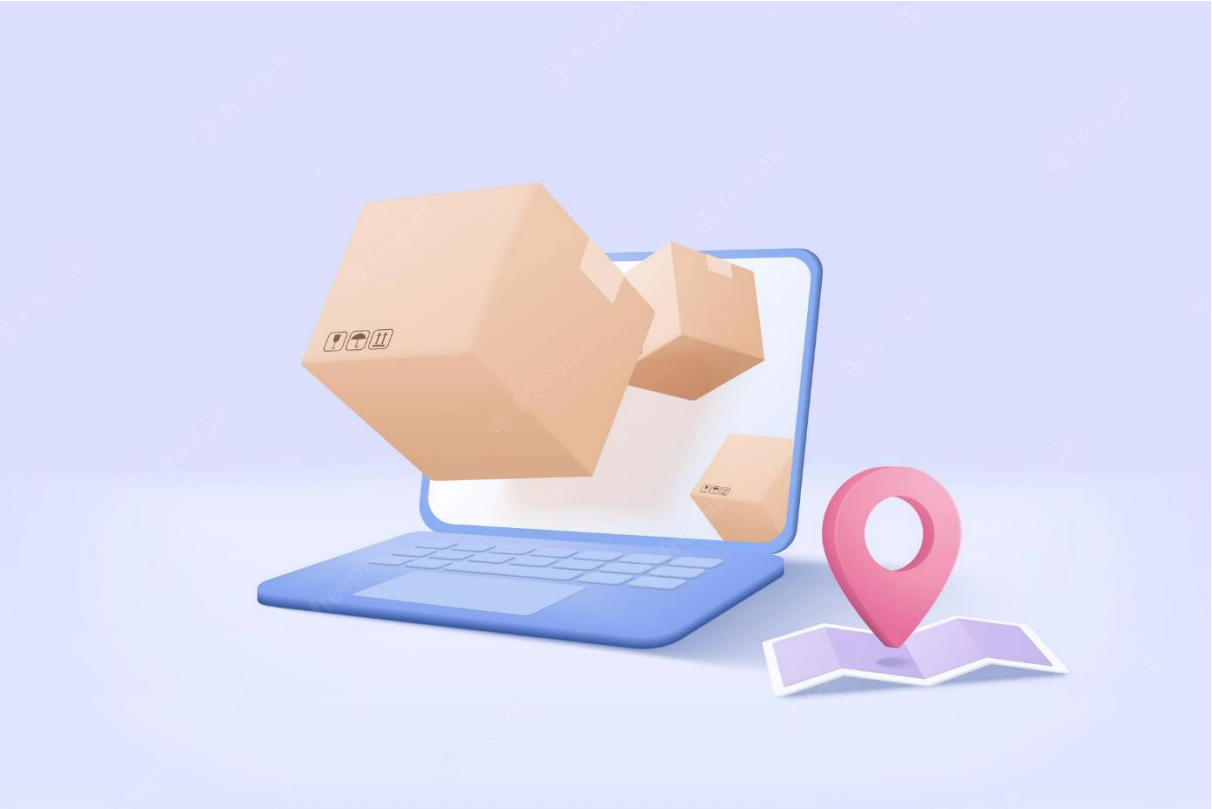
REDUCING RETURNS IN ONLINE FASHION RETAIL



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Reducing returns in online fashion retail

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ABSTRACT

In the current fashion retail landscape, online returns are a problem. 40% of orders are returned and the transportation of these returns causes emissions. Additionally, a part of items returned are unfit for sale again. These two factors contribute to the environmental impact of returns. One of the big drivers behind these returns is bracketing, an ordering technique used by consumers where multiple sizes or items are ordered with the intention of sending some of the items back. Thus, to reduce returns, bracketing should be discouraged.

Considering existing literature, no effective means to reduce bracketing were found. Therefore, the current literature proposes two new bracketing-reducing actions. First, informing actions, which aim to increase awareness about the environmental impact of returns. Second, rewarding actions, which implements an incentive for not engaging in bracketing behavior. Besides reducing bracketing, it was hypothesized that implementing rewards would also increase customer satisfaction.

The proposed actions were tested by conducting an experiment. In this experiment, the participants had to order fashion items at a fictional web shop and were then met with either the informing action, the rewarding action or a control message. Afterwards, the participants were to answer a couple of questions about their experiences with the web shop. The results showed that only the rewarding action was successful in reducing bracketing. Additionally, both the informing action and the rewarding action were found to increase customer satisfaction.

The current research offers a starting point for exploring new bracketing-reducing actions. For marketeers, the findings of the current research can be used to implement new actions in order to reduce bracketing, thereby reducing returns, while also increasing customer satisfaction.

Keywords: online fashion retail, returns, bracketing, informing, rewarding, customer satisfaction

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1. INTRODUCTION

In the last couple of years, online shopping has quickly become an important part of retail, and it shows no sign of slowing down. During the COVID-19 pandemic online shopping became more important than ever (Thuiswinkel.org, 2021). Even after the greatly decreased presence of the virus in western countries, online retail of products continues to grow (Thuiswinkel.org, 2021). Currently, 36% of consumers prefer to buy products online over buying products in brick-and-mortar stores (Hedin, 2022). A report conducted by payment service Klarna shows that consumers' preference for online shopping in 2022 has increased in western countries by 4% compared to the previous year (Hedin, 2022). Next, the report shows that the preference for online shopping is expected to increase by another 3% in 2023 (Hedin, 2022).

This ever-growing new market comes with a set of challenges, one being the environmental impact of orders. With climate change gaining increased attention and a growing call from governments (European Union, 2022; United Nations, 2022), organizations (Greenpeace, 2019) and consumers (Kloosterman, 2021) to act sustainably, the online retail market cannot stay behind. A variety of different aspects contribute to the carbon footprint of an order, specifically production, packaging and transport (Van Niekekerk et al., 2018). Transport attributes to the environmental impact because vehicles delivering the orders emit greenhouse gases such as carbon dioxide, which impact the environment (Santos, 2017). Orders can also be returned. This in particular is wasteful, because transportation emissions are produced twice.

The present research focuses on the fashion industry, as this is the industry facing the highest amount of returns, at 40% (Van Niekekerk et al., 2018), and because the average cost of an order returned is noteworthy, at an estimated €12.50 (Van Niekekerk et al., 2018). Additionally, returns are more problematic for the fashion industry than other industries because items returned are more often not fit for sale again, as the items may have been damaged or stained by consumers (Van Niekekerk et al., 2018; Bhardwaj & Fairhurst, 2010). This brings fashion retailers considerable costs and is the returns are a waste of materials and emissions (Napier & Sanguineti, 2018). As the amount of returns is numerous (Van Niekekerk et al., 2018) and their negative consequences are apparent (Santos, 2017; Van Niekekerk et al., 2018), it is beneficial to see the number of returns reduced.

Looking at current literature on returns, researchers have investigated the reasons consumers have to return their online orders. According to a qualitative study with approximately 20,000

respondents from across the globe, the most common reason for returning fashion items was a mismatch of size in 38% of returns (Kaleedy, 2022; Statista, 2022). This was followed by a mismatch of style at 15%, being unsatisfied with the quality at 14% and receiving the wrong items at 13% (Kaleedy, 2022; Statista, 2022). As a result of consumers' experiences with a mismatch of size and mismatch of style, consumers have turned to a specific ordering behavior called "bracketing" (Salerno-Garthwaite, 2022; Xu et al., 2022). Bracketing occurs when a consumer orders multiple different sizes or styles of the same product with the intention to send at least some of the items back (Hartmans, 2021; Xu et al., 2022). For consumers, the benefit of engaging in this behavior is that they can try on different sizes and styles at home and pick which ones they like most. However, it is problematic behavior as it guarantees that the order will at least partially be returned, increasing the environmental impact of the order. A substantial amount of research on why returns in fashion occur and why consumers engage in bracketing behavior has been conducted (Cullinane et al., 2019; Kaleedy, 2022; Mangiaracina et al., 2015; Xu et al., 2022) However, research on how to reduce bracketing is limited. The current research takes a step into that direction.

By analyzing current literature and real world examples, the current research identifies two categories of actions that are being used to reduce bracketing. First, assisting actions, which serve as a means for consumers to better be able to assess if the product will fit them (Guigourès et al., 2018; Shin & Istook, 2007). Second, limiting actions are identified, which make the returning process less convenient (Nanji, 2022). These two categories have been tried and tested in practice before, but sometimes with unsatisfactory (Abdulla et al., 2022; Shang et al., 2018) or adverse results (Nanji, 2022; Vembar, 2022).

Therefore, the current research introduces two new possible bracketing-reducing actions, namely informing and rewarding actions. Informing actions aim to make consumers aware of the negative environmental impact of returning. By making the consumers more aware of the environmental consequences, the consumers may be more eager to avoid contributing to these consequences. Informing actions may be more effective on consumers who are concerned about the environment (Mainieri et al., 1997). Rewarding actions offer benefits for consumers who do not return their order. Implementing rewards may make consumers strive for obtaining these rewards and thereby stop bracketing. Aside from possibly reducing bracketing, rewarding actions may also contribute to customer satisfaction (Stathopoulou & Balabanis, 2016). The

two proposed action categories and corresponding hypotheses will be tested by answering the following research question:

RQ: How do informing and rewarding actions influence bracketing?

Additionally, to investigate the hypothesized side effect of rewarding actions on customer satisfaction, the following sub-research question will be answered:

SRQ: How do rewarding actions influence customer satisfaction?

In practice, the findings of this paper can be used by online fashion retailers to reduce their environmental impact. Existing literature shows that when retailers actively reduce their environmental it influences how consumers perceive these retailers, improving brand image (Singh & Sharma, 2022; Bansal & Roth, 2000). This is beneficial for the retailers, as brand image is positively linked to brand performance (Singh & Sharma, 2022). Additionally, reducing bracketing will reduce retailers' costs (Van Niekekerk et al., 2018). Besides being useful for the fashion industry, the current research may also provide findings applicable in other markets dealing with returns, like the sports (Frei et al., 2020) or books (Griffis et al., 2012) online retail markets. Although ordering behavior from consumers is different in these markets, informing or rewarding actions may still prove useful in reducing returns.

2. THEORY

To reduce bracketing four action types can be identified. Assisting and limiting actions are already being used in practice. Additionally, the current research proposes two new action types, informing and rewarding actions.

ASSISTING ACTIONS

Assisting actions are actions that aid consumers in finding items that will suit them best. This help is important as mismatch of fit was identified as the most frequently cited reason for returning (Kaleedy, 2022; Statista, 2022). As a result, a multitude of assisting actions have been developed. Some online retailers have introduced detailed sizing tables or systems that will give consumers their advised size based on height, waistline, chest and other measurements (Shin & Istook, 2007). Another example is Fit Analytics, an organization that has introduced a system that converts sizes for different brands or regions (Fit Analytics, 2022). These tools will help find the size a consumer needs from a particular fashion brand if that consumer already knows what size fits them well from other brands (Fit Analytics, 2022; Guigourès et al., 2018). Next, the implementation of models with different body types has been used to show what the clothing may look like on different body types instead of on the lean and muscular bodies traditionally used in modeling (Diedrichs & Lee, 2010; Scaraboto & Fischer, 2013). Additional assisting actions that are currently being developed are trying on clothes virtually through the use of augmented reality (Boardman et al., 2019; Watson et al., 2018) and 3D-scans of the body (Daanen & Psikuta, 2018) to test the fit of a clothing piece remotely.

While helpful to a certain extent, assisting actions are currently not perfected.. For example, size converters have imperfect accuracy (Gustafsson et al., 2021) and virtual try-ons do not represent fit completely realistically (Gustafsson et al., 2021). Moreover, because assisting actions are currently not flawless, these actions come with unsatisfying results (Abdulla et al., 2022; Shang et al., 2018). Because of these unsatisfying results, bracketing behavior is reinforced. As assisting actions were unsatisfying to customers, they have turned to bracketing behavior when ordering (Xu et al., 2022). Consequently, the customer, having become accustomed to bracketing, are now not willing to actively engage with new assisting actions (Salerno-Garthwaite, 2022). This unwillingness to engage then again results in unsatisfying results for assisting actions. For example, after a particular fashion brand started offering real-time online sizing advice to their customers, the brand found that these consumers often

declined sizing advice because the consumers preferred ordering multiple sizes anyway (Salerno-Garthwaite, 2022), thus having become accustomed to bracketing behavior.

LIMITING ACTIONS

Considering the unsatisfying results from the assisting actions, the emergence of limiting actions may be on the horizon. Limiting actions seek to reduce returns by imposing restrictions on consumers with certain rules or punishing them for returning. One practical example is the case of ZARA. Fashion retailer ZARA has introduced small fees for online returns in the UK and Benelux markets (Nanji, 2022; ZARA, 2022). However, consumers are discharged from the small fee if they return the items personally in-store (Nanji, 2022; ZARA, 2022).

There is an ongoing debate on the effectiveness of limiting actions. Considering the ZARA case, the introduction of the return fee seems to have had the intended effect, namely a reduction of returns (Abdulla et al., 2022; Vembar, 2022). However, Zvagelsky (2022) challenges the effectiveness of limiting actions on reducing returns based on Shopify data. According to Zvagelsky (2022), a customer-friendly return policy may actually reduce returns. For example, increasing the time a consumer is allowed to return items makes consumers forget to initiate the return or the consumers may grow attached to the items, both result in fewer returns (Zvagelsky, 2022). Additionally, the potential adverse consequences of limiting actions should be taken into account. The ZARA case shows that limiting actions come with a set of challenges, such as reduced consumer satisfaction (Nanji, 2022; Vembar, 2022). Reduced consumer satisfaction can result in consumers ordering less or moving to retailers that do not have limiting actions implemented (Abdulla et al., 2022; Vembar, 2022). Additional research is necessary to encapsulate the real consequences of implementing limiting actions.

INFORMING ACTIONS

In social psychology, Dual Process theories have long been used to distinguish between two different types of information processing, depending on whether they operate automatically or take effort to process information (Gawronski & Creighton, 2013). One of these Dual Process theories is the System 1 and System 2 Processing theory (Gawronski & Creighton, 2013). The System 1 and System 2 Processing theory distinguishes between intuition and reasoning (Gawronski & Creighton, 2013; Kahneman, 2011). Intuition can be characterized as fast, automatic, effortless and emotional. Contrarily, reasoning can be characterized as slow,

controlled, effortful and rational. Caraban et al. (2019) combine Dual Process theory with Nudging theory. Nudging can be characterized as altering choice structures to steer people's behavior without adding restrictions or incentives (Thaler & Sunstein, 2008). Caraban et al. (2019) offer an overview of nudging types and categorize them. A variety of nudges, including but not limited to "remind of consequences" can be utilized to active consumers' reasoning instead of intuition (Caraban et al., 2019). This will get the consumers to make a more well-considered decision.

As the results of assisting actions are dissatisfactory and the results of limiting actions may backfire, the current research proposes two additional action categories that will be tested. Starting with informing actions, which aim to make consumers aware of the environmental consequences of returns and have them make a more conscious decision. To make consumers reflect on their purchase and its consequences, nudges can be utilized (Caraban et al., 2019) The effect of nudges has previously been researched in other sectors. In the food sector, providing products with an eco-label on the packaging can prompt consumers to consciously reconsider their purchase (Bălan, 2020; Lee et al., 2020). For instance, Vlaeminck et al. (2014) have tested the effect of informing consumers about environmental consequences in a supermarket setting. The researchers put up stands where they offered three product categories, with each three products. From each product category, one product was considered eco-friendly and this was highlighted with an eco-friendly label. The researchers found that when offering eco-friendly products highlighted with a label, eco-friendly purchases increased by 10% from a situation where no eco-friendly labels were being used on eco-friendly products (Vlaeminck et al., 2014). In their research, Lee et al. (2012) have taken a look about the effect of informing about the environmental consequences of a purchase in the fashion industry. When providing participants with an advertorial about green fashion options, the researchers found that this had a positive effect on participants' green consumption intention (Lee et al., 2012). These findings indicate that consumers can be moved to consume more sustainably when stimulated to do so (Lee et al., 2012; Vlaemick et al., 2014). Concretely, in regards to reducing bracketing, this effect could be utilized by having a pop-up message at checkout. The pop-up could inform consumers about the environmental impact of transporting their orders and especially returns.

To understand how informing or rewarding actions can help in reducing bracketing, it is important to first take a look at goal theory. Having a goal means to change your behavior towards achieving something desirable in the future (Brandstätter & Hennecke, 2018). Thus,

goals control behavior and as a consequence shape people's daily life (Brandstätter & Hennecke, 2018). Thereby it also influences decision-making. This is important within the context of the current research, as it can help us understand how implementing certain actions, like an informing action, can appeal to certain goals consumers may have and how it will affect their decision-making.

There are multiple ways to look at goals. One of the ways to frame goals is by useage of the Approach-Avoidance Theory (Elliot, 2008; Monni et al., 2020). According to this theory there are two ways to frame goals, namely as approach or avoidance goals. Simply put, approach goals use positive framing and avoidance goals use negative framing. However, the two different ways of framing can be used for achieving the same goal (Elliot, 2008). This can be best explained by an example. For completing a course, a student may utilize approach framing "I want to get a good grade" or avoidance framing "I do not want to fail this course". Both framing perspectives ultimately contribute to the same goal, the goal of passing the course (Brandstätter & Hennecke, 2018).

In the current research, the Approach-Avoidance Theory can explain how the different proposed action types, informing and rewarding actions, both contribute to the reduction of bracketing by means of framing. With informing actions, avoidance framing is being used. Informing actions notify consumers about the negative consequences of returning. By not engaging in bracketing behavior, consumers avoid these negative consequences and contribute to the goal of reducing bracketing. Within the context of the current research, these negative consequences are consequences that impact the environment negatively. Thus,

H_1: Informing actions lead to an increase in consumers avoiding negative consequences, compared to a situation where no action is taken.

The avoidance framing of informing actions appeals to consumers who would have a personal goal of reducing their environmental impact. Reducing their environmental impact holds no immediate personal benefits for the consumer. For example, informing actions bring no financial benefits to consumers for reducing their bracketing behavior. Therefore, informing actions may vary in effectiveness for different types of consumers. Environmental concern is a potential consumer trait that can be described as consumers being aware of environmental issues and wanting to reduce their own environmental impact (Cruz & Manata, 2020). Young et al. (2009) found that self-declared green consumers are willing to reduce their environmental

impact, but the green consumers are not always equipped to do so. The consumers with environmental concern should be given information on what green consumption behavior entails (Young et al., 2009). Subsequently, if consumers with environmental concern have both the willingness and the information on how to reduce their environmental impact, they will increasingly engage in green consumption behavior (Mainieri et al., 1997; Young et al., 2009). Furthermore, Hameed & Warris (2018) found that eco-labels, an example of informing actions, were more effective on consumers with environmental concern than on consumers without this trait (Hameed & Warris, 2018). Thus,

H_2: The higher consumers' environmental concern, the stronger the relationship between informing actions and consumers avoiding negative consequences.

REWARDING ACTIONS

Some consumers may not be moved to change their behavior when confronted with information about the environmental impact of returns, and need be convinced of changing their ordering behavior in another manner. This may be accomplished by implementing rewarding actions, which can be characterized as incentivizing consumers to comply with desired behavior by offering the consumers certain benefits. For the current research, desired behavior for consumers would be to stop engaging in bracketing behavior. Bracketing is tempting to consumers as it is mostly convenient behavior for them with little personal negative consequences (Farrugia et al., 2022; Khadem, 2021). To disrupt this behavior, a reward can be offered for not returning.

Prospect Theory and the concept of loss aversion can serve as a theoretical foundation on why rewarding actions could work (Edwards, 1996; Kahneman & Tversky, 1979). According to Prospect Theory, consumers experience gains and losses differently, where they experience losses more intensively (Kahneman & Tversky, 1979). Meaning that, for example, a loss of $100 dollars needs to be matched by a gain of $200 dollars to feel like the loss has been compensated. This shows that consumers are no rational agents when it comes to decision making (Kahneman & Tversky, 1979). Because of how gains and losses are being experienced differently, consumers are typically more inclined to prevent losses, which is called loss aversion (Kahneman & Tversky, 1979; Schmidt & Zank, 2005).

The tendency of consumers towards loss aversion can be utilized within the online fashion retail context by means of offering rewards. To what extent consumers value bracketing and how to express that monetarily is difficult, both for researchers and consumers themselves. However, offering a reward, such as a discount, could trigger consumers to opt out of bracketing behavior, as this behavior would ensure them to have to return and thus miss out on the reward.

Previous research has already shown that consumers are attracted to retailers not only by the products that the retailer offers, but also by the rewards or benefits the retailer offers (Subramanian, 2017). Additionally, retailers can incentivize consumers to change their shopping behavior when offering rewards (Subramanian, 2017; Yi & Jeon, 2003). Using rewarding within fashion retail has previously been examined, by studying loyalty programs (Stathopoulou & Balabanis, 2016). Loyalty programs allow consumers to earn rewards at a particular retailer by shopping there multiple times (Stathopoulou & Balabanis, 2016). The researchers found that offering rewards can be used to move consumers towards the behavior that retailers would desire from the consumers (Stathopoulou & Balabanis, 2016).

Existing research has not yet considered whether rewarding mechanisms can be used to reduce bracketing. The current research aims to do so by testing a rewarding action, namely offering discounts. In practice, this can be implemented by offering a discount to consumers if they keep all the items that they ordered, or in other words, return none. When consumers make use of after-pay services, the discount would be applied directly to the order as a bill reduction. Retailers themselves would have to calculate what discount would be effective and profitable. This discount is attractive for the consumer because they will pay less and may also prove to be beneficial for retailers, as the cost of a return was estimated at €12.50 (Van Niekekerk et al., 2018) and 40% of fashion orders are returned (Van Niekekerk et al., 2018).

The Approach-Avoidance Theory (Elliot, 2008; Monni et al., 2020) can again explain how besides, informing actions, rewarding actions also contribute to the reduction of bracketing by means of framing. With rewarding actions, approach framing is being used. Rewarding actions notify consumers about the positive consequences if they do not return any items. By not engaging in bracketing behavior, consumers approach these positive consequences and contribute to the goal of reducing returns. Within the context of the current research, these positive consequences are a reward, specifically a discount. Thus,

H_3: Rewarding actions lead to an increase in consumers approaching positive consequences, compared to a situation where no action is taken.

CONSEQUENCES OF THE ACTIONS

Bracketing is a type of ordering behavior wherein consumers order different sizes or variations of the same product to test them out at home (Xu et al., 2022). A key element of bracketing is that the consumer has the intention to send at least part of the order back, meaning that a return is guaranteed (Hartmans, 2021; Xu et al., 2022). Bracketing has emerged as a countermeasure to deal with a misfit of size, the most common reason for consumers to return their order (Kaleedy, 2022; Statista, 2022). However, when bracketing occurs, it also increases the environmental impact of online ordering because of the return transportation (Mangiaracina et al., 2015). Subsequently, to reduce their environmental impact, retailers aim to reduce bracketing. To do this, consumers need to be convinced to change their ordering behavior. This can be achieved by organizations by making consumers aware of the environmental consequences and/or by providing consumers with incentives for changing their ordering behavior. As established, these actions make consumers avoid negative consequences or approach positive consequences. Thus,

H_4: The more consumers avoid negative consequences, the less frequently bracketing behavior will occur.

H_5: The more consumers approach positive consequences, the less frequently bracketing behavior will occur.

In addition to consumers approaching positive consequences possibly making them refrain from bracketing behavior, it may also come with additional consequences. Particularly, customer satisfaction may increase. Customer satisfaction can be defined as an affective consumer response based on the evaluation of a product and its corresponding services (Giese & Cote, 2000). Customer satisfaction is important for retailers as it increases consumers coming back for return purchases (Ju & Yoo, 2009; Patel, 2018) and also results in good word-of-mouth (Patel, 2018), which brings in new consumers (Berger, 2014). When researching the effects of a specific rewarding action, loyalty programs implemented by fashion retailers, Stathopolou & Balabanis (2016) found that loyalty programs lead to increased customer satisfaction. Participation in loyalty programs is voluntary, which results in increased customer

satisfaction only when consumers are actively engaging with the program. Utilization of loyalty programs is similair to offering discounts as they both incentivize consumers to change their behavior, and because of that they can both be considered rewarding actions. Therefore, the current study expects to find a similair increase in customer satisfaction. Thus,

H_6: The more consumers approach positive consequences, the more customer satisfaction will increase.

FRAMEWORK

In order to answer the given research questions, the following conceptual framework was identified, pictured in Figure 1. This framework combines all hypotheses established previously and will be tested in subsequent chapters.

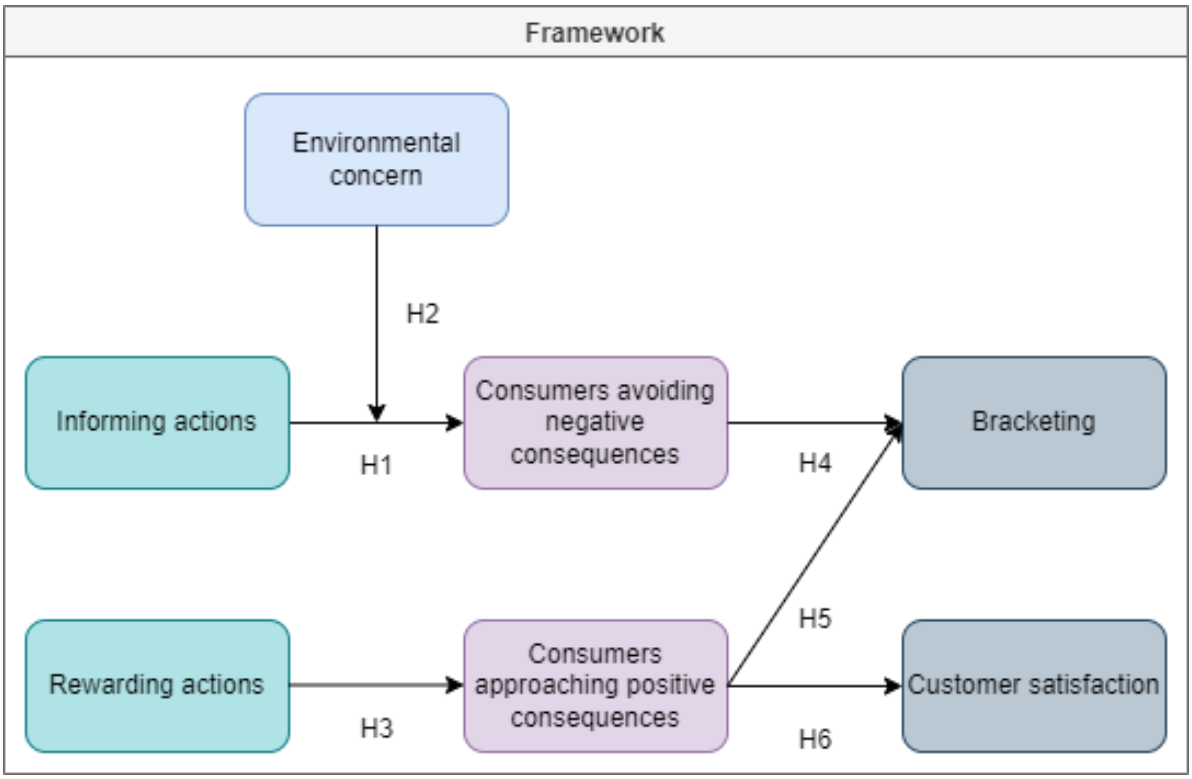

Figure 1

3. METHODS

PARTICIPANTS AND DESIGN

For the current research, 142 participants completed the experiment and were analyzed. The group of participants consisted of 65 male participants (45.8%), 74 female participants (52.1%) and 3 participants who identified as another gender or did not disclose their gender (2.1%). The average age of the participants was 25.28 with a standard deviation of 9.511. Participants were gathered using a convenience sampling method. Primarily via social media channels belonging to the main researcher, specifically Instagram, Facebook, LinkedIn and WhatsApp. Additionally, some participants were gathered using word of mouth and some participants were gathered using the survey-sharing platform SurveySwap and SurveyCircle. People participated voluntarily. To encourage participation, potential participants were informed that a €20.-bol.com voucher would be given to a randomly selected participant. Participants were randomly assigned to one of the three conditions with the manipulation being different bracketing-reduction actions. These three conditions were the informing action, rewarding action or no action (control condition), and a between-subject design was used. The entire experiment was created in Qualtrics and people could participate online.

PROCEDURE AND VARIABLES

First, people were asked to participate in the experiment. When entering the Qualtrics website for the experiment, the participants were met with a short profile of the main researcher, which specified the researcher's name and their studies. The participants were asked to consent to the storage of their answers and their use for scientific purposes. The participants were informed that participation in the experiment was anonymous. If the participants continued with the experiment they were informed that they were going to shop at Webshop X and were presented the following scenario:

"For your friend's birthday this week, you really want to wear a new outfit. However, you have no time to go to the store, so you decide to purchase clothes online."

This scenario was chosen to create some sense of urgency for the participants and to be able to assess whether the participants engaged in bracketing. For this scenario the participants only need one outfit. Subsequently, if the participants ordered multiple sizes from the same item it

was recognized as bracketing. Additionally, if the participants ordered multiple different items from the same item category, for example pants, it was also recognized as bracketing.

After reading the beforementioned scenario description the participants were redirected to a fictitious online clothing store. When the participants entered the website they could pick out 24 different items, consisting of 8 pants, 8 sweaters and 8 shirts. The items were not categorized in terms of gender. The selection of items was a copy of a similar project previously supervised by dr. Ilona de Hooge (Broek et al., 2022), with only the jacket section removed from the original selection as these items did not apply to the scenario in the current research. The list of items can be found in Appendix 2. For each item, the participants could pick from a range of sizes. For the pants it ranged from size 26 to size 40 and for the tops it ranged from XS to XXL. There was no limit to the number of items participants could order. Thus, the participants were able to order multiple sizes of the same item or multiple items in the same product category. This allowed the participants to engage in bracketing behavior if they so desired.

After selecting the desired items, the participants were to move on to their online shopping basket. To manipulate the action type, at this point participants were shown an informing, a rewarding or a control pop-up. The informing pop-up informed the participants about how returning items contributes to the environmental impact of their order by showing the following text:

"Not returning any items decreases the environmental impact of your order."

The rewarding pop-up informed participants of a discount on their order they would receive, if the participants were not to return any items. The following text was shown:

"If you do not return any items, you will receive a €5.00 discount."

Additionally, the control pop-up showed the following text:

"The items you selected were added to the shopping basket."

Full images of the pop-ups are pictured in Appendix 3. The manipulation was intentionally done after the participants had made their first selection, this allowed the researchers to measure if the pop-up made the participants remove any items. After participants were shown the pop-ups, they were redirected to their shopping basket. This shopping basket showed a list of the entire selection of merchandise and if the participants selected any items, it was shown,

including the size(s) ordered. Here two questions were asked. First, whether participants wanted to remove any items from their basket. Second, whether participants wanted to add any items from their basket. Finally, participants were to confirm their final order. The participants' final order was used to assess whether the participants engaged in bracketing behavior according to the current research. After the participants confirmed their order, they were asked to answer some more questions.

Whether participants engaged in (what the current research would define as) bracketing could already be extracted from their behavior during the experiment, but to make sure if the participants really intended to engage in bracketing two additional questions were asked. First, the participants were asked if they ordered multiple sizes from the same product with the intention of sending some of them back. Then, the participants were asked if they ordered multiple products from the same item category with the intention of sending some of them back. These questions were to be answered on a 1-7 (strongly disagree - strongly agree) Likert scale. Thus, the current research had three different measures for bracketing, one nominal measure, that was labeled "bracketing post pop-up", and two scale measures, labeled "self-reported size-bracketing" and "self-reported style-bracketing". The three measures were analyzed separately.

To measure the two mediators, scales were created. For the mediator "consumers avoiding negative consequences" the scale consisted of four items. Two items related to environmental consequences and two related to bad labor conditions. For the mediator "consumers approaching positive consequences" the scale consisted of six items. Two items related to efficiency, two items related to discounts and two related to till the shopping assortment. The questions were to be answered on 1-7 (strongly disagree - strongly agree) Likert scale. The ten items in total were formulated in one question matrix, which can be found in Appendix 4. However, the two constructs were analyzed separately. First, the question scale for consumers avoiding negative consequences was analyzed. The scale was found to have good reliability (α =.889) and it formed one component with an Eigenvalue of 3.01 and explained variance of 75%. Second, the question scale for consumers approaching positive consequences was analyzed. The scale was found to have good reliability (α =.817). Factor analysis showed to components. The first component had an Eigenvalue of 3.15 and explained variance of 52%. This component grouped the items "try to receive a discount", "try to save time" and "search for efficient ways to shop" together. This component was labeled "approaching efficiency".

The second component had an Eigenvalue of 1.02 and explained variance of 17%. This component grouped the items “try to find unique items” and “search for beautiful clothes together. This component was labeled “approaching variety”. Additionally, one item “approaching a good deal” was found to have low factor loadings for both component and it was decided that this item would be analyzed separately. The factor loadings for all ten items can be found in Appendix 4.

Next, to measure whether the rewarding action increased customer satisfaction compared to the control situation, an altered question scale from Gaski & Etzel (1986) was used. The scale is about satisfaction in relation to retailers and items only applicable to offline retail were excluded. Next, the items were changed from a general perspective to questions about the participants’ experience with Webshop X. Five items remained, for example “Webshop X served me well” and “Webshop X provided good service”. The full question scale can be found in Appendix 5. The questions were to be answered on a 1-7 (strongly disagree - strongly agree) Likert scale. A factor analysis on these customer satisfaction items showed a clear one component solution with an Eigenvalue of 2.93 and explained variance of 59%. The scale was found to have good reliability (α =.821).

Serving as a manipulation check, the participants were asked about the pop-up that they had seen earlier. To check for the informing manipulation pop-up, participants were asked: “the retailer gave me information about the environmental impact of my order”. As a manipulation check for the rewarding pop-up, participants were asked: “the retailer gave me information about a discount on my order”. Both questions were to be answered on a 1-7 (strongly disagree - strongly agree) Likert scale.

At this point the participants had answered all questions about their experience with X and were presented with a new set of questions relating to their personality, online shopping behavior in daily life and question about their demographic background.

First, the presence of the character trait environmental concern among the participants was measured. To measure this construct an altered version of Cruz & Manata’s (2020) scale on environmental concern was used. The scale was extensive, so it was slimmed-down to five items, eliminating some items that were not applicable to what the current research was trying to measure. Next, the phrasing of the items was altered to allow for the usage of a 1-7 (strongly disagree - strongly agree) Likert scale. Five items remained, for example “In general, I am

concerned about the environmental impact of my actions" and "In general, I am concerned about climate change". The full question scale can be found in Appendix 6. A factor analysis on these environmental concern items showed a clear one component solution with an Eigenvalue of 3.58 and explained variance of 72%. The scale was found to have excellent reliability (α =.895).

Then, the participants were asked details about their online shopping behavior. Participants were asked to estimate how often they order clothing online. This question could be answered "weekly", "monthly", "every half-year", "yearly" or "never". Next, the alteration of the first two questions were repeated but this time relating to the participants' daily life instead of their experience with Webshop X. The participants were first asked if they sometimes order multiple sizes of the same item with the intention of sending some of them back. The participants were also asked if they sometimes order multiple different items from the same category with the intention of sending some of them back. Possible answers ranged from "strongly disagree" to "strongly agree". Additionally, participants were asked for personal details, specifically their gender and age.

Finally, a possibility for the participants to leave open remarks was offered at the end of the experiment. At the very end participants could leave behind their mail-address or Instagram handle and join a raffle of a €20.- bol.com voucher. The full Qualtrics experiment can be found in Appendix 1.

4. RESULTS

MANIPULATION CHECKS

When analyzing the results of the experiment, the first thing that was important to know is whether the manipulation had worked. As a reminder, there were three conditions, the control condition, the manipulated informing condition and the manipulated rewarding condition. To check if the manipulation has worked, two manipulation check questions were asked. The manipulation checks showed that our bracketing-reduction manipulation was successful.

Analyzing the informing manipulation check with regards to the different conditions using one-way ANOVA showed that informing-participants reported significantly different values to what extent Webshop X informed them about the environmental consequences of their order (M =3.13, SD = 1.758), compared to control-participants (M = 1.73, SD = 1.221) and compared to rewarding-participants (M = 2.44, SD = 1.575) with F(2, 141) = 9.998 and p = <.001. One-way ANOVA has shown us that there is at least some difference between the conditions regarding the informing action. How the groups differ was established by executing multiple contrast analysis. First, we found that informing-participants reported significantly higher values for the informing manipulation check than rewarding-participants with t(139) = 2.142 and p = .034, and control-participants with t(139) = 4.471 and p = <.001. Next, we found that rewarding-participants reported significantly higher values for the informing manipulation than control-participants with t(139) = 2.245 and p = .026.

Analyzing the rewarding manipulation check with regards to the different conditions using one-way ANOVA showed that rewarding-participants reported significantly different values to extent Webshop X informed them about a discount (M = 5.00, SD = 2.023) compared to control-participants (M = 1.94, SD = 1.376) and compared to informing-participants (M = 1.98, SD = 1.376) with F(2, 141) = 54.927 and p = <.001. One-way ANOVA has shown us that there is at least some difference between the conditions regarding the rewarding action. How the groups differ was established by executing multiple contrast analysis. First, we found that rewarding-participants reported significantly higher values for the informing manipulation check than informing-participants with t(139) = 9.049 and p <.001, and then control-participants with t(139) = 9.215 and p = <.001. Next, we found that there is no significant difference between informing-participants and control-participants with t(139) = 0.124 and p = .902, regarding the rewarding manipulation.

Then, the file was split regarding the different conditions. This allowed for usage of a paired-samples t-test to see if there were any significant differences within the different conditions regarding to what extent the informing and rewarding manipulations were perceived to be experienced. Among the control-participants, the rewarding manipulation was perceived marginally significantly higher compared to informing manipulation, with $t(48) = 1.651$ and $p = .053$. Among the informing-participants, the informing manipulation was perceived significantly higher compared to rewarding manipulation, with $t(47) = 4.303$ and $p = <.001$. Among the rewarding-participants, the rewarding manipulation was perceived significantly higher compared to informing manipulation, with $t(44) = 6.468$ and $p = <.001$.

In conclusion, the manipulation was found to be successful as the reported values for the different manipulations were significantly higher for their respective conditions, compared to the other manipulation.

MANIPULATION EFFECT ON BRACKETING

After establishing that the manipulation had worked, analyses relating to different parts within the framework were conducted. First, we tested if our manipulation had any significant effect on the final dependent variables, specifically bracketing and customer satisfaction. The current research expected an effect for the informing manipulation on bracketing and for the rewarding manipulation an effect on both bracketing and customer satisfaction.

Considering bracketing post pop-up, a Chi-square crosstabs analysis was conducted. This crosstabs showed that bracketing post pop-up occurred at a significantly different frequency among the different conditions, (informing manipulation 31%, rewarding manipulation 53%, control manipulation 65%), with $\chi^2 (2, 142) = 11.542$ and $p = .003$. To see which exact manipulation differed significantly, multiple crosstabs analyses were conducted, each time comparing two conditions each other. The results showed that the informing manipulation had a significantly lower frequency of bracketing post pop-up compared to the control manipulation, with $\chi^2 (1, 97) = 11.260$ and $p = <.001$, and also compared to the rewarding manipulation, with $\chi^2 (1, 93) = 4.652$ and $p = .031$. Comparing the rewarding manipulation and control manipulation showed no significant difference, with $\chi^2 (1, 94) = 1.396$ and $p = .237$.

Repeating the original crosstabs analysis a second time, taking into account gender showed no significant difference for men, with $\chi^2 (2, 65) = 3.065$ and $p = .216$. However, for women a

significant difference was found, χ^2 (2, 74) = 9.330 and p = .009. This showed that the informing manipulation had a bigger effect on reducing bracketing behavior for women than for men as shown in table 1.

Gender	**Manipulation Type**	**Bracketing post pop-up (%)**	
		No	Yes
Male	Control	36.4	63.6
	Informing	61.5	38.5
	Rewarding	52.9	47.1
Female	Control	33.3	66.7
	Informing	76.2	23.8
	Rewarding	42.3	57.7

Table 2

Additionally, two other bracketing items were measured. Self-reported size-bracketing and self-reported style-bracketing. Considering self-reported size-bracketing, conducting a one-way ANOVA showed no significantly different effect among the informing manipulation (*M* = 1.79, SD = 1.611), the rewarding manipulation (*M* = 2.58, SD = 2.017) and the control manipulation (*M* = 2.10, SD = 2.054), with F(2, 141) = 2.003, p =.139 and η^2 = .028.

Considering self-reported style-bracketing, conducting a one-way ANOVA showed that there was a significant difference among the informing manipulation (*M* = 1.92 SD = 1.397), the rewarding manipulation (*M* = 2.84, SD = 1.745) and the control manipulation (*M* = 2.37, SD = 1.944), with F(2, 141) = 3.414, p =.036 and η^2 = .047. Running contrast analysis showed that the informing-participants reported significantly less style-bracketing compared to the rewarding-participants, with *t*(139) = 2.613 and p = .010, but not compared to the control-participants, with *t*(139) = 1.297 and p = .197. Comparing rewarding-participants and control-participants showed no significant difference, with *t*(139) = 1.350 and p = .179.

In conclusion, an analysis on the bracketing post pop-up showed that participants in the informing condition engaged significantly less in bracketing post pop-up compared to the other conditions. Regarding self-reported size-bracketing, no significant difference was found among conditions. Regarding self-reported style-bracketing, it was found that participants in the informing condition reported significantly less style-bracketing compared to participants in the rewarding condition. Thus, we note that the informing manipulation was more effective on

reducing bracketing directly, compared to the rewarding manipulation on two out of three items, and, compared to the control manipulation on one out of three items. The rewarding manipulation was not found to reduce bracketing directly on any items, compared to the other conditions.

MANIPULATION EFFECT ON CUSTOMER SATISFACTION

For the rewarding manipulation we were not only interested in its effect on bracketing, but also whether it had an effect on customer satisfaction, as the current research was expecting. Conducting a one-way ANOVA showed that there was no significantly different effect among the rewarding manipulation (M = 4.39, SD = 0.955), the informing manipulation (M = 4.183, SD = 1.259) and the control manipulation (M = 4.08, SD = 1.173) on customer satisfaction, with F(2, 141) = 0.911, p =.405 and η^2 = .013. Meaning that the manipulation was not found to influence customer satisfaction directly.

MANIPULATION EFFECT ON AVOIDING NEGATIVE CONSEQUENCES

Next, whether the manipulation had any significant effect on the mediators was tested. This started with looking at the effect of the manipulation on 'consumers avoiding negative consequences'. According to the predictions, presenting the participants with an informing pop-up were to lead to an increase in consumers avoiding negative consequences, compared to when no such action was taken (H_1). By conducting a one-way ANOVA we noticed that there was no significantly different effect among the informing-participants (M = 3.18, SD = 1.583), the rewarding-participants (M = 3.04, SD = 1.529) and the control-participants (M = 2.74, SD = 1.639) on consumers avoiding negative consequences, with F(2, 141) = 0.964, p =.384 and η^2 = .014. Thus, H_1 was rejected.

MANIPULATION EFFECT ON APPROACHING POSITIVE CONSEQUENCES

The current research also predicted that the participants in the rewarding condition would have an increase in them approaching positive consequences, compared to the other conditions (H_3). As a result of the factor analysis, approaching positive consequences had been split up in three different components, *approaching efficiency*, *approaching variety* and *approaching a good deal*. These three components were tested separately by conducting one-way ANOVAs with the rewarding manipulation as the independent and the three different approaching positive consequences components as the dependent variables.

Considering approaching efficiency, we noticed no significantly different effect among the informing-participants (M = 4.15, SD = 1.770), the rewarding participants (M = 4.67, SD = 1.497) and the control-participants (M = 4.23, SD = 1.674), with F(2, 141) = 1.354, p = .262 and η^2 = .019.

Considering approaching variety, we noticed no significantly different effect among the informing-participants (M = 4.44, SD = 1.620), the rewarding participants (M = 4.67, SD = 1.480) and the control-participants (M = 4.32, SD = 1.593), with F(2, 141) = 0.600, p = .550 and η^2 = .009.

Considering approaching a good deal, we did notice a significantly different effect among the informing-participants (M = 4.23, SD = 2.034), the rewarding-participants (M = 5.29, SD = 1.561) and the control-participants (M = 3.80, SD = 1.814), with F(2, 141) = 8.286, p = <.001 and η^2 = .107. Running contrast analysis for approaching a good deal showed that the rewarding manipulation lead to an increase in consumers approaching a good deal, compared to the informing manipulation, with t(139) = 2.808 and p = .006, and compared to the control manipulation, with t(139) = 3.976 and p = <.001. Comparing the informing manipulation with the control manipulation in regards to the effect on approaching a good deal showed no significant difference, with t(139) = 1.173 and p = .243.

In conclusion, we only found a significant increase in consumers approaching positive consequences as a result of the rewarding condition, compared to the other conditions, on one out of three approaching components, namely the approaching a good deal component. There was no significant effect found for the approaching efficiency and approaching variety components. Meaning that partial support for accepting H_3 was found.

ENVIRONMENTAL CONCERN MODERATING EFFECT

The current research was expecting a moderating effect of the personal trait environmental concern on the relation between the informing manipulation and consumers avoiding negative consequences (H_2). To test this, the SPSS PROCESS extension by Hayes was used. This extension allowed for conducting a moderation analysis with the informing manipulation as independent variable, avoiding negative consequences as dependent variable and environmental concern as the moderator. This test showed no significant main effect of the informing manipulation on consumers avoiding negative consequences, with t(142) = 0.050

and p = .960. Moreover, no significant interaction effect was found, with $t(142) = 0.322$ and p = .748. This meant that environmental concern does not moderate the relationship between the informing manipulation and consumers avoiding negative consequences in a significant way. Additionally, moderation analyses correcting for age and gender were conducted, but none found any significance. The moderation analysis correcting for age did not show a significant main effect, with $t(142) = 0.212$ and p = .828, nor a significant interaction effect, with $t(142) = 0.065$ and p = .947. The moderation analysis correcting for gender did not show a significant main effect, with $t(142) = 0.172$ and p = .863, nor a significant interaction effect either, with $t(142) = 0.555$ and p = .580.

Whether environmental concern had a moderating effect on the relation between the rewarding manipulation as independent variable and consumers approaching positive consequences as dependent variable was also investigated using Hayes' PROCESS. For the three different approaching positive consequences components separate moderation analyses were conducted. Considering consumers approaching efficiency, no significant main effect was found, with $t(142) = 0.388$ and p = .698. Moreover, no significant interaction effect was found, with $t(142) = 0.013$ and p = .990. Considering consumers approaching variety, no significant main effect was found, with $t(142) = 0.041$ and p = .967. Moreover, no significant interaction effect was found, with $t(142) = 0.172$ and p = .864. Considering consumers approaching a good deal, no significant main effect was found, with $t(142) = 1.274$ and p = .205. Moreover, no significant interaction effect was found, with $t(142) = 0.389$ and p = .698.

In conclusion, no moderating effect of environmental concern on the relation between the informing manipulation and consumers avoiding negative consequences was found. This meant that H_2 was rejected. Additionally, no moderating effect of environmental concern on the relation between the rewarding manipulation and consumers approaching positive consequences was found. Thus, environmental concern was not found to have a moderating effect on the relation between the manipulation and the mediators of the current research.

MEDIATORS EFFECT ON BRACKETING

Next, we tested whether the mediators in the model have a significant effect on the dependent variables. Starting with the dependent variable bracketing. The current research was expecting consumers avoiding negative consequences to reduce bracketing (H_4). Next, the current research was expecting consumers approaching positive consequences to reduce bracketing

(H_5). As previously established, there were three separate items measuring bracketing and the mediator approaching positive consequences was split up in three components. For the first analysis, we looked at bracketing post pop-up. The values of this item were nominal and therefor a binary logistic regression analysis was conducted. Besides the mediators, also the participants' age, gender and online shopping frequency were analyzed using the binary logistic regression analysis. The full model including all variables was statistically significant, with $\chi^2(7, 141) = 17.445$ and $p = .015$. The model explained between 11.6% and 15.5% of the variance between bracketing and no bracketing, according to Cox & Snell R^2 (.116) and Nagelkerke R^2 (.155). No significant effect for avoiding negative consequences was found, with $t(142) = 1.552$ and $p = .213$. Meaning that this analysis provided no support for accepting H_4. Only approaching variety was found to significantly reduce bracketing post pop-up, with $t(142) = 4.244$ and $p = .039$. Besides, approaching efficiency was found to have a marginally significant effect in reducing bracketing post pop-up, with $t(142) = 3.414$ and $p = .065$. This meant that this analysis provided partial support for accepting H_5. Additionally, online shopping frequency was found to have a marginal significant effect in reducing bracketing post pop-up. Complete B, *t* and p values for all variables are shown in table 2.

Variable	**B**	***t*(142)**	**p**
Avoiding negative consequences	0.164	1.552	.213
Approaching efficiency	-0.273	3.414	.065
Approaching variety	-0.291	4.244	.039
Approaching a good deal	0.073	0.327	.568
Gender	0.071	0.040	.841
Age	0.013	0.394	.530
Online shopping frequency	-0.400	3.466	.063

Table 2

The two remaining bracketing items, self-reported size-bracketing and self-reported style-bracketing, had scale values and therefor the effect of the mediators on these items was examined using standard multiple regression analysis. Starting with an analysis on self-reported size-bracketing. The analysis showed no significant model, with $F(4, 141) = 0.149$ and $p = .963$. R^2 had a value of .004, meaning that 0.4% of self-reported size-bracketing could be explained by the mediators. None of the mediators showed significance as provided in table 3. A standard multiple regression analysis regarding self-reported style-bracketing showed

similar results. The model was not significant, with F(4, 141) = 1.082 and p = .843. R^2 had a value of .010, meaning that 1% of self-reported style-bracketing could be explained by the mediators. The mediators did not show any significance for explaining self-reported style-bracketing either as provided in table 3. This meant that the mediators of consumers avoiding negative consequences and approaching positive consequences cannot be used to explain self-reported size-bracketing or style-bracketing. Thus, these two analysis provided no support for accepting H_4 or H_5.

Self-reported size bracketing	**B**	**Beta**	***t*(142)**	**p**
Avoiding negative consequences	0.024	.020	0.211	.833
Approaching efficiency	-0.037	-.032	0.286	.775
Approaching variety	0.084	.069	0.681	.497
Approaching a good deal	-0.018	-.018	0.163	.871
Self-reported style bracketing	**B**	**Beta**	***t*(142)**	**p**
Avoiding negative consequences	0.037	.034	0.360	.720
Approaching efficiency	0.090	.085	0.775	.440
Approaching variety	0.034	.031	0.303	.763
Approaching a good deal	-0.101	-.111	1.005	.317

Table 3

In conclusion, out of the three analyses conducted, regarding the relation between consumers avoiding negative consequences and a reduction in bracketing behavior, no significant was found. This meant that H_4 was rejected. Out of the three analyses conducted regarding the relation between consumers approaching positive consequences and a reduction in bracketing behavior, one analysis was found to have significant elements. The only significance that was found regarding this relation was approaching variety significantly decreasing bracketing post pop-up and approaching efficiency marginally significantly decreasing bracketing post pop-up. This meant that partial support for accepting H_5 was found.

MEDIATORS EFFECT ON CUSTOMER SATISFACTION

Besides bracketing, the current research was also interested in the effect of the mediators on customer satisfaction. In particular, the current research was expecting consumers approaching positive consequences to have a positive effect on customer satisfaction (H_6). But, whether consumers avoiding negative consequences affected customer satisfaction was also analyzed.

A standard multiple linear regression was conducted to investigate the mediators' effect on customer satisfaction. Besides the mediators, also the participants' age, gender and online shopping frequency were analyzed. The model was found to have significance, with $F(7, 140) = 3.665$ and $p = .001$. R^2 had a value of .162, meaning 16.2% of customer satisfaction could be explained by the variables. Looking at the mediators separately, avoiding negative consequences was found have a marginally significant effect in increasing customer satisfaction, with $t(142) = 1.894$ and $p = .060$. Next, approaching variety was found have a significant effect in increasing customer satisfaction, with $t(142) = 2.133$ and $p = .035$. Additionally, age was found to have a significant in reducing customer satisfaction, with $t(142) = 3.157$ and $p = .002$. Complete B, Beta, T and p values for all variables in regards to customer satisfaction can be found in table 4.

Variables	**B**	**Beta**	***t*(142)**	**p**
Avoiding negative consequences	0.123	.171	1.894	.060
Approaching efficiency	0.067	.097	0.922	.358
Approaching variety	0.150	.205	2.133	.035
Approaching a good deal	-0.080	-.134	1.270	.206
Gender	0.101	.083	0.997	.330
Age	-0.528	-.272	3.157	.002
Online shopping frequency	0.006	.050	0.613	.541

Table 4

These findings provide partial support for accepting H_6. Moreover, a relation between consumers avoiding negative consequences and increased customer satisfaction was found. This was not theorized in the current research.

MEDIATION ANALYSIS REGARDING BRACKETING

Next, the current research is interested in to what extent the mediators explain how the bracketing-reducing manipulation influences the dependent variables, starting with the dependent variable bracketing. This was investigated by conducting mediation analyses using Hayes' PROCESS. Three separate mediation analyses were run, each time with the manipulation as independent variable and the mediators, avoiding negative consequences, approaching efficiency, approaching variety and approaching a good deal as mediators. The

dependent variable was different for each mediation analysis as a result of multiple different bracketing measures.

First, to what extent mediators explained bracketing post pop-up. The indirect effect of the manipulation via avoiding negative consequences on bracketing post pop-up was not significant, with beta = -0.026 and 95%CI = (-.131, .037). The indirect effect of the manipulation via approaching efficiency on bracketing post pop-up was not significant, with beta = 0.059 and 95%CI = (-.028, .225). The indirect effect of the manipulation via approaching variety on bracketing post pop-up was not significant, with beta = 0.048 and 95%CI = (-.038, .193). The indirect effect of the manipulation via approaching a good deal on bracketing post pop-up was not significant, with beta = -0.039 and 95%CI = (-.264, .166).

Second, to what extent mediators explained self-reported size-bracketing was examined. The indirect effect of the manipulation via avoiding negative consequences on self-reported size-bracketing was not significant, with beta = 0.004 and 95%CI = (-.050, .068). The indirect effect of the manipulation via approaching efficiency on self-reported size-bracketing was not significant, with beta = -0.005 and 95%CI = (-.090, .041). The indirect effect of the manipulation via approaching variety on self-reported size-bracketing was not significant, with beta = 0.016 and 95%CI = (-.036, .114). The indirect effect of the manipulation via approaching a good deal on self-reported size-bracketing was not significant, with beta = -0.047 and 95%CI = (-.237, .115).

Third, to what extent mediators explained self-reported style-bracketing was examined. The indirect effect of the manipulation via avoiding negative consequences on self-reported style-bracketing was not significant, with beta = 0.005 and 95%CI = (-.031, .061). The indirect effect of the manipulation via approaching efficiency on self-reported style-bracketing was not significant, with beta = 0.023 and 95%CI = (-.035, .105). The indirect effect of the manipulation via approaching variety on self-reported style-bracketing was not significant, with beta = 0.008 and 95%CI = (-.038, .073). The indirect effect of the manipulation via approaching a good deal on self-reported style-bracketing was not significant, with beta = -0.115 and 95%CI = (-.262, .033).

In conclusion, no significance was found for any of the mediation analyses regarding the dependent variable bracketing. This meant that the mediators of the current research were unable to explain the relationship between the manipulation and bracketing.

MEDIATION ANALYSIS REGARDING CUSTOMER SATISFACTION

Besides bracketing, the current research was also interested in to what extent the mediators were able to explain how the bracketing-reducing manipulation influences customer satisfaction. To examine this, again, a mediation analysis was conducted using Hayes' PROCESS. For this analysis the independent variable was the manipulation, the mediators were avoiding negative consequences, approaching efficiency, approaching variety, approaching a good deal and the dependent variable was customer satisfaction.

The indirect effect of the manipulation via avoiding negative consequences on customer satisfaction was not significant, with beta = 0.013 and 95%CI = (-.020, .054). The indirect effect of the manipulation via approaching efficiency on customer satisfaction was not significant, with beta = 0.012 and 95%CI = (-.012, .057). The indirect effect of the manipulation via approaching variety on customer satisfaction was not significant, with beta = 0.019 and 95%CI = (-.017, .065). The indirect effect of the manipulation via approaching a good deal on customer satisfaction was not significant, with beta = -0.059 and 95%CI = (-.147, .010).

In conclusion, no significance was found for the mediation analyses regarding the dependent variable customer satisfaction. This meant that the mediators of the current research were unable to explain the relationship between the manipulation and customer satisfaction.

ANALYSES RELATING TO PERSONAL DETAILS

Analyses on whether participants' personal details, gender, age and online shopping frequency, influence bracketing and customer satisfaction have already been described in prior analyses. Additionally, moderating analyses regarding these personal details were conducted using Hayes' PROCESS to see if any of the personal details had a moderating effect.

First, a set of moderation analyses considering the relation between the manipulation and the bracketing item based on participants' shopping behavior were conducted. Considering gender as moderator, no significant main effect was found, with Z(141) = 0.820 and p = .412. Moreover, no significant interaction effect was found, with Z(141) == 0.424 and p = .671. Considering age as moderator, no significant main effect was found, with Z(141) = 0.879 and p = .379. Moreover, no significant interaction effect was found, with Z(141) = 1.260 and p = .208. Considering online shopping frequency as moderator, no significant main effect was

found, with Z(141) = 0.567 and p = .571. Moreover, no significant interaction effect was found, with Z(141) = 0.133 and p = .894.

Second, a set of moderation analyses considering the relation between the manipulation and customer satisfaction were conducted. Considering gender as moderator, no significant main effect was found, with Z(141) = 1.639 and p = .104. Moreover, no significant interaction effect was found, with Z(141) = 1.187 and p = .237. Considering age as moderator, no significant main effect was found, with Z(141) = 0.410 and p = .682. Moreover, no significant interaction effect was found, with Z(141) = 0.055 and p = .956. Considering online shopping frequency as moderator, a marginally significant main effect was found, with Z(141) = 1.880 and p = .062. Moreover, no significant interaction effect was found, with Z(141) = 1.544 and p = .125.

In conclusion, the personal details gender, age and online shopping frequency were found to have no significant moderating effect in the current research.

RESULTS SUMMARY

In the theory chapter of the current research a conceptual framework was introduced, which connected informing actions and rewarding actions to bracketing and customer satisfaction. In the results chapter, among others, the theorized hypotheses were tested. A visual summary on whether the hypotheses have been accepted or rejected is illustrated in figure 2, with the hypotheses colored red indicating rejection and the hypotheses colored yellow indicating partial support.

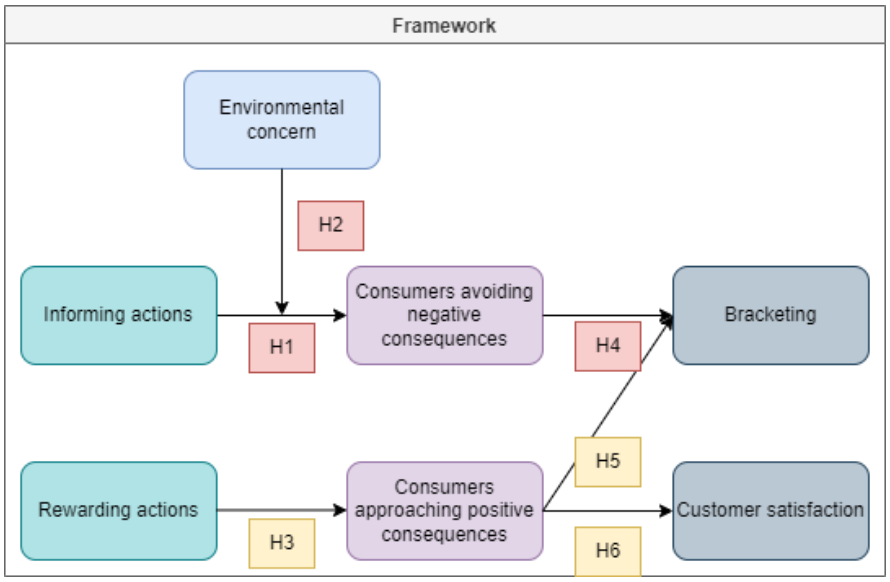

Figure 2

As illustrated, H_1, H_2 and H_4 were rejected. This meant that no relation was found between the informing action and consumers avoiding negative consequences. Thereby, consumers avoiding negative consequences was not found to significantly influence bracketing behaviour. Additionally, environmental concern was not found to moderate the relationship between the informing action and consumers avoiding negative consequences.

Considering a positive relationship between the rewarding action and consumers approaching positive consequences (H_3), partial support was found because the rewarding action was found to significantly increase consumers approaching a good deal. Considering a relationship between consumers approaching positive consequences and reducing bracketing behavior (H_5), partial support was found because approaching efficiency was marginally significant and approaching variety was significant in decreasing bracketing post pop-up. Considering the relation between consumers approaching positive consequences and increased customer satisfaction (H_6), partial support was found because approaching variety was significant in increasing customer satisfaction. Additionally, the relationship between consumers avoiding negative consequences and customer satisfaction was not considered in the framework, but a marginally significant positive relation was found.

5. DISCUSSION

In online fashion retail, an integral part of its environmental impact is caused by returns (Santos, 2017; Van Niekekerk et al., 2018). One of the biggest drivers of returns is bracketing behavior (Salerno-Garthwaite, 2022; Xu et al., 2022), and thus, the current research theorized that discouraging this behavior would reduce the environmental impact. To achieve this, two new bracketing-reducing actions were introduced, informing actions and rewarding actions. Informing actions aim to increase awareness about the negative environmental consequences of returning. Rewarding actions incentivize consumers to not return their order. After conducting an experiment, the current research found the rewarding action to be successful in reducing bracketing behavior among participants. This relationship was not found for the informing action. Additionally, both proposed bracketing-reducing actions were found to increase customer satisfaction.

THEORETICAL IMPLICATIONS

The current research contributes to bracketing literature by introducing two new bracketing-reducing actions, namely informing actions and rewarding actions. In existing literature, two bracketing-reducing actions were being discussed, assisting actions (Guigourès et al., 2018; Shin & Istook, 2007) and limiting actions (Nanji, 2022). These two existing actions could be considered flawed. Assisting actions were found to be ineffective in reducing bracketing (Abdulla et al., 2022; Shang et al., 2018), and thus the rewarding actions could serve as an alternative, as this action was found to be effective in reducing bracketing. Additionally, limiting actions were found to be effective in reducing bracketing (Vembar, 2022), however, customers were unhappy with the action and switched to retailers that implemented no such action (Vembar, 2022). In contrast, both informing actions and rewarding actions were found to positively influence customer satisfaction and should therefore be considered. Thus, these two new actions are a valuable contribution to bracketing literature.

The current research also showed interesting findings regarding implementing the proposed bracketing-reducing actions and customer satisfaction. Within marketing and consumer behavior literature, researchers it is often theorized that organizations reducing their environmental impact would have a positive effect on their business objectives (Singh & Sharma, 2022; Bansal & Roth, 2000). These business objectives can be measured using KPIs and one of the most commonly measured KPIs is customer satisfaction (Setijono & Dahlgaard,

2007). In the current research, it was found that both informing actions and rewarding actions positively influenced customer satisfaction. These findings are an interesting contribution to the aforementioned discussion. The current research shows that organizations can increase customer satisfaction by implementing these bracketing-reducing actions. Interestingly, in doing so, organizations itself would not directly be reducing their environmental impact. Instead, organizations are urging consumers to reduce bracketing behavior and, in doing so, reduce their share of the environmental impact caused by the organization's business conduct. Moreover, for informing actions, there is no incentive for consumers to reducing bracketing behavior, but this action still increases customer satisfaction. In conclusion, existing literature suggests that organizations decreasing their environmental impact would increase customer satisfaction (Singh & Sharma, 2022; Bansal & Roth, 2000). However, the current research may serve as an example where organizations urging other stakeholders to decrease their environmental impact, or thereby possibly decreasing their own environmental impact, can also have a positive effect on customer satisfaction.

Additionally, the current research provides an example of message framing as an important tool in goal theory. For establishing the conceptual framework, the current research made use of the Approach-Avoidance Theory (Elliot, 2008; Monni et al., 2020). The current research was aiming to achieve the goal of reducing bracketing via two different paths. For the informing action, avoidance framing was used. For the rewarding action, approach framing was used. Looking at the results of the current research, only approach framing lead to achieving the goal of reducing bracketing. Thus, the current research provides an example of how different ways of framing can be a pivotal element in successfully achieving a specific goal.

Finally, the current research provides an example of how implementing a nudge does not mean guaranteed success. Nudging theory was used to establish parts of the theoretical foundation of the current research (Caraban et al., 2019), specifically in theorizing how the informing action would lead to a reduction in bracketing. In the current research, a nudge was implemented after consumers had made their selection of merchandise. The nudge informed participants about the negative environmental impact of returning and was meant to urge them to take a critical look at their selection of merchandise and remove any items they were likely to return. Apparently, this was not an effective nudge, as no relation was found between the informing action and reducing bracketing. Thus, the current research can be utilized as a testcase for nudging theory and offers an example of where it was not effective. This contribution can be

interesting within the broader context of nudging theory literature. As, besides criticism on the ethics of nudging (A. Schmidt & Engelen, 2020), there is also growing debate on the effectiveness of nudging (De Ridder et al., 2020; Hummel & Maedche, 2019).

PRACTICAL IMPLICATIONS

As was made clear in the theoretical implications part, the bracketing-reducing actions the current research introduced have a positive impact on customer satisfaction. Therefore, these actions can be implemented by online fashion retailers to increase customer satisfaction. Customer satisfaction is important to maintain current customers and attract new ones (Berger, 2014; Ju & Yoo, 2009; Patel, 2018).

Additionally, the rewarding action was found to reduce bracketing behavior. A reduction in bracketing means a reduction in returns (Xu et al., 2022). This has two positive consequences for organizations. First, returns are costly, so reducing them would reduce costs (Van Niekekerk et al., 2018) Second, returns increase organizations' environmental impact (Santos, 2017; Van Niekekerk et al., 2018). Reducing environmental impact by itself could be considered the right thing to do for an organization. Furthermore, organizations that reduce their environmental impact improve their brand image (Singh & Sharma, 2022), which has other positive consequences, such as attracting customers (Berger, 2014). For organizations, the incentive that comes with rewarding actions are a business expense. In regards to profitability, organizations should consider whether the costs of rewarding consumers is compensated by a decrease returning expenses. However, when quantifying this, organizations should also consider extra turnover that is being generated as a result of increased customer satisfaction.

For consumers, the implementation of the rewarding action would be financially beneficial, as consumers would receive a discount for not engaging in bracketing. For consumers who did not engage in bracketing behavior in the first place, it would be even more beneficial as they would not have to alter their shopping behavior. The implementation of the informing action was theorized to be beneficial for consumers who personally want to reduce their environmental impact, as it would inform them how to reduce their environmental impact. However, as the current research found no evidence that the informing action reduced bracketing, it cannot be claimed that the informing action helps willing consumers reduce their environmental impact.

LIMITATIONS & RECOMMENDATIONS FOR FUTURE RESEARCH

For the current research, some limitations were identified. Considering the web shop element in the experiment, it cannot be said with full certainty that the participants' behavior fully resembled their real online shopping behavior. The experiment's web shop was made in Qualtrics and did not realistically resemble a real web shop. In the open remarks section of the experiment, some respondents confirmed that it did not feel like a real web shop. Additionally, another participant noted that the selection of merchandise felt limited to them. The selection of merchandise consisted of 24 items in total, eight items per category. This is substantially less compared to shopping at a real web shop. Also, the participants knew that they would not actually receive the items or have to make a payment. Other factors that some real web shops have are shopping fees and free shipping at a certain threshold or the ability to make use of after-pay services. All these factors may have potentially contributed to participants' behavior diverging from their behavior in daily life. In future research, this problem could be overcome by testing the bracketing-reducing actions by implementing it in a real existing web shop. By doing so, it is presumed that participants' behavior will more closely resemble their shopping behavior in daily life. This way, real behavior may be measured more accurately and thereby it would increase the strength of findings that consider whether the proposed bracketing-reducing actions are effective.

Consumers are complex and their complexities should be taking into account regarding bracketing-reducing actions. In the current research one character trait was already measured and implemented in the conceptual framework, namely consumers' environmental concern. However, there are many more personality traits that future research could consider and investigate whether it influences effectiveness of certain bracketing-reducing actions. One specific trait to consider is approach versus avoidance temperament, which stems from Approach-Avoidance Theory (Elliot, 2008; Monni et al., 2020). This theory is a part of goal theory and was used for conceptualizing the current research's framework. The theory suggests two ways of framing goals, namely as approach or avoidance goals (Elliot, 2008; Monni et al., 2020). Furthermore, Elliot & Thrash (2002), suggested a dichotomous distinction between personality traits, namely approach temperament (extraverted, positive, active) versus avoidance temperament (neurotic, negative, reserved). People with either of these personality traits are theorized to be more perceptive towards the respective goal framing, approach or avoidance (Elliot & Thrash, 2002). This suggests that effectiveness of either approach or

avoidance framing may vary depending on personality. In future research, it is recommended to look at this relationship. Researchers should ask the participants questions to figure out whether they are equipped with approach or avoidance temperament. Subsequently, the researchers may find a moderating role for this personality traits which influences the effectiveness of bracketing-reducing actions among certain people. If such a relationship is found, these findings could support segmentation of consumers based on specific personality traits and applying different or multiple bracketing-reducing actions.

Finally, the current research found a relationship that was not considered in the conceptual framework. The informing action did not lead to a reduction in bracketing behavior, but it did increase customer satisfaction. The reason for this increase in customer satisfaction was not identified. Future research should look more deeply into this relationship by asking participants specifically what they liked about shopping at a web shop that has implemented the informing action. Perhaps the researchers discover that consumers appreciate the fact that a company appears to be making an effort to reduce its environmental impact.

CONCLUSION

In summary, the emergence of online shopping has occurred and it is here to stay. This evolution brought the fashion industry, that is already dealing with multiple sustainability-related problems, a new set of challenges. One of them being returns. It was already understood that bracketing was one of the drivers, but effective measures to reduce this behavior were not present yet. The current research has introduced two alternative bracketing-reducing actions. In doing so, the current research has explored new ways of looking at bracketing and offers a stepping stone for future research on this topic. Hopefully, this will provide the fashion industry with new measures to reduce their environmental impact and open the door to more sustainable business conduct within the market of e-commerce.

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APPENDICES

APPENDIX 1: FULL QUALTRICS EXPERIMENT

Start of Block: Introduction

Welcome!

Thank you for participating in this survey. At the end of the survey, you can enter a raffle for a chance to win a €20.- Bol.com voucher.

My name is Daan Verboom and I am studying Consumer Studies at Wageningen University. For my master's thesis, I am writing about online shopping behavior and you can help me by answering a couple of questions.

Participation in this research is voluntary. Your answers will be completely anonymous and will only be used for this research. You are allowed to stop at any time, however, your answers will only be useful to me if you finish the survey completely. The survey will take approximately five minutes.

The survey consists of two sections. First, you will order clothes at Webshop X. Afterwards, you will answer a couple questions about your shopping behavior. For both sections, please know that I am only interested in your thoughts and opinions, there are no right or wrong answers.

Page Break

Please imagine the following scenario:

"For your friend's birthday this week, you really want to wear a new outfit. However, you have no time to go to the store, so you decide to purchase clothes online, at Webshop X."

At Webshop X, you do not have to pay directly. Instead, you have to pay within 30 days after receiving your order. At this point, I'd like to emphasize that you are participating in an experiment, so you will not actually receive the items or have to pay for them. Please try to imitate how you would normally order clothes.

Go to the next question to enter Webshop X.

End of Block: Introduction

Start of Block: Webshop

Welcome to Webshop X

You can add items to your basket by checking the boxes. There is no limit to the number of items you can order and you are able to select multiple sizes per product. Enjoy your

shopping!

Aside from names and prices, pictures of the items were shown. These can be found in Appendix 2.

Pants

	26	28	30	32	34	36	38	40
Chino - beige **€49.95**	☐	☐	☐	☐	☐	☐	☐	☐
Chino - blue **€52.95**	☐	☐	☐	☐	☐	☐	☐	☐
Straight leg jeans - comfort fit **€49.95**	☐	☐	☐	☐	☐	☐	☐	☐
Jeans - slim taper fit **€54.95**	☐	☐	☐	☐	☐	☐	☐	☐
Flared pants - blue **€49.99**	☐	☐	☐	☐	☐	☐	☐	☐
Jeans - blue, straight leg **€54.95**	☐	☐	☐	☐	☐	☐	☐	☐
Jeans - light blue, relaxed fit **€53.95**	☐	☐	☐	☐	☐	☐	☐	☐
Jeans - black, skinny fit €49.95	☐	☐	☐	☐	☐	☐	☐	☐

Sweaters

	XS	S	M	L	XL	XXL
Grey sweater **€49.99**	☐	☐	☐	☐	☐	☐
Red sweater **€59.99**	☐	☐	☐	☐	☐	☐
Blue sweater **€35.00**	☐	☐	☐	☐	☐	☐
Black sweater **€52.00**	☐	☐	☐	☐	☐	☐
Beige sweater **€44.95**	☐	☐	☐	☐	☐	☐
Green sweater **€50.00**	☐	☐	☐	☐	☐	☐
Brown hoodie **€35.99**	☐	☐	☐	☐	☐	☐
White sweater **€49.95**	☐	☐	☐	☐	☐	☐

Shirts

	XS	S	M	L	XL	XXL
T-Shirt - green **€20.00**	☐	☐	☐	☐	☐	☐
Polo shirt - navy blue **€18.99**	☐	☐	☐	☐	☐	☐
T-Shirt - striped **€24.95**	☐	☐	☐	☐	☐	☐
T-Shirt - red/black striped **€21.99**	☐	☐	☐	☐	☐	☐
T-Shirt - striped **€19.99**	☐	☐	☐	☐	☐	☐
Shirt - black **€50.00**	☐	☐	☐	☐	☐	☐
Top black **€25.99**	☐	☐	☐	☐	☐	☐
Top striped **€19.99**	☐	☐	☐	☐	☐	☐

Did you select all the items that you would like to order? Then go to the next question to continue to your shopping basket.

End of Block: Webshop

Here one of the three pop-ups were shown. Images of these pop-ups can be found in Appendix 3.

Start of Block: Control

Control pop-up .

End of Block: Control

Start of Block: Informing Manipulation

Informing pop-up .

End of Block: Informing Manipulation

Start of Block: Rewarding Manipulation

Rewarding pop-up .

End of Block: Rewarding Manipulation

Start of Block: Shopping basket

Selected items list **Shopping basket**

Below is a list of all the items in your shopping basket.
When there are sizes noted after the product name, it means that you selected the product for the mentioned sizes. Product names without sizes were not selected.

The blue segments are codes in Qualtrics. If participants' selected any items, there respective size(s) would shop up behind the item name.

Pants
Chino - beige: ${Pants/ChoiceGroup/SelectedAnswers/1}
Chino - blue: ${Pants/ChoiceGroup/SelectedAnswers/2}
Straight leg jeans: ${Pants/ChoiceGroup/SelectedAnswers/3}
Jeans slim taper fit: ${Pants/ChoiceGroup/SelectedAnswers/4}
Flared pants blauw: ${Pants/ChoiceGroup/SelectedAnswers/5}
Jeans - blue, straight leg: ${Pants/ChoiceGroup/SelectedAnswers/6}
Jeans - light blue, relaxed fit: ${Pants/ChoiceGroup/SelectedAnswers/7}
Jeans - black, skinny fit: ${Pants/ChoiceGroup/SelectedAnswers/8}

Sweaters
Grey sweater: ${Sweaters/ChoiceGroup/SelectedAnswers/1}
Red sweater: ${Sweaters/ChoiceGroup/SelectedAnswers/2}
Blue sweater: ${Sweaters/ChoiceGroup/SelectedAnswers/3}
Black sweater: ${Sweaters/ChoiceGroup/SelectedAnswers/4}
Beige sweater: ${Sweaters/ChoiceGroup/SelectedAnswers/5}
Green sweater: ${Sweaters/ChoiceGroup/SelectedAnswers/6}
Brown hoodie: ${Sweaters/ChoiceGroup/SelectedAnswers/7}
White sweater: ${Sweaters/ChoiceGroup/SelectedAnswers/8}

Shirts
T-shirt - green: ${Shirts/ChoiceGroup/SelectedAnswers/1}
Polo shirt - navy blue: ${Shirts/ChoiceGroup/SelectedAnswers/2}
T-shirt - striped: ${Shirts/ChoiceGroup/SelectedAnswers/3}
T-shirt - red/black striped: ${Shirts/ChoiceGroup/SelectedAnswers/4}

T-shirt - striped: ${Shirts/ChoiceGroup/SelectedAnswers/5}
Shirt - black: ${Shirts/ChoiceGroup/SelectedAnswers/6}
Top black: ${Shirts/ChoiceGroup/SelectedAnswers/7}
Top striped: ${Shirts/ChoiceGroup/SelectedAnswers/8}

At this point, you can choose to add or remove items from your shopping basket.

Do you wish to **remove** any items? Then, please write down the name and size of the item(s) in the text field below.

_____

Do you wish to **add** any items? Then, please write down the name and size of the item(s) in the text field below.

_____

Are you done editing your shopping basket? Or do you not wish to make any changes? Then go to the next question to confirm your final order.

End of Block: Shopping basket

Start of Block: Introduction to questions

Thank you for completing the first section of this survey by shopping at Webshop X.

Next, you will be asked some questions about your experiences at Webshop X.

End of Block: Introduction to questions

Start of Block: Measuring bracketing intention

Please read the following statement:

At Webshop X, I ordered multiple sizes of the same item with the intention of sending some of these items back.

To what extent do you agree with this statement?

Please check the box that best suits you. The possible answer categories range from 1

(Strongly disagree) to 7 (Strongly agree).

- ○ 1 (Strongly disagree)
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 (Strongly agree) Please read the following statement:

At Webshop X, I ordered multiple different items with the intention of sending some of these items back.

To what extent do you agree with this statement?

Please check the box that best suits you. The possible answer categories range from 1 (Strongly disagree) to 7 (Strongly agree).

- ○ 1 (Strongly disagree)
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 (Strongly agree)

End of Block: Measuring bracketing intention

Start of Block: Avoiding negative consequences or approaching positive consequences

Please read the following statement:

Shopping at Webshop X motivated me ...

Below, this statement is repeatedly finished with different endings.

To what extent do you agree with these statements?

Please check the boxes that best suit you. The possible answer categories range from 1 (Strongly disagree) to 7 (Strongly Agree).

	1 (Strongly disagree)	2	3	4	5	6	7 (Strongly agree)
try to reduce my environmental impact	○	○	○	○	○	○	○
search for environmental-friendly ways to shop	○	○	○	○	○	○	○
try to reduce my share in bad labor conditions	○	○	○	○	○	○	○
search for fair-trade products	○	○	○	○	○	○	○
try to save time	○	○	○	○	○	○	○
search for efficient ways to shop	○	○	○	○	○	○	○
try to receive a discount	○	○	○	○	○	○	○
search for a good deal	○	○	○	○	○	○	○
try to find unique items	○	○	○	○	○	○	○
search for beautiful clothes	○	○	○	○	○	○	○

End of Block: Avoiding negative consequences or approaching positive consequences

Start of Block: Customer satisfaction

Please read the following statement:

Webshop X ...

Below, this statement is repeatedly finished with different endings.

To what extent do you agree with these statements?

Please check the boxes that best suit you. The possible answer categories range from 1 (Strongly disagree) to 7 (Strongly agree).

	1 (Strongly disagree)	2	3	4	5	6	7 (Strongly agree)
served me well	○	○	○	○	○	○	○
was a satisfying place to shop	○	○	○	○	○	○	○
provided an adequate selection of merchandise	○	○	○	○	○	○	○
provided good service	○	○	○	○	○	○	○
had reasonable prices	○	○	○	○	○	○	○

End of Block: Customer satisfaction

Start of Block: Manipulation check informing action

Please read the following statement:

Webshop X gave me information about the environmental impact of my order.

To what extent do you agree with this statement?

Please check the box that best suits you. The possible answer categories range from 1

(Strongly disagree) to 7 (Strongly agree).

- ○ 1 (Strongly disagree)
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 (Strongly agree)

End of Block: Manipulation check informing action

Start of Block: Manipulation check rewarding action

Please read the following statement:

Webshop X gave me information about a discount on my order.

To what extent do you agree with this statement?

Please check the box that best suits you. The possible answer categories range from 1 (Strongly disagree) to 7 (Strongly agree).

- ○ 1 (Strongly disagree)
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 (Strongly agree)

End of Block: Manipulation check rewarding action

Start of Block: Introduction general questions

Thank you for answering the questions about your experiences at Webshop X.

Finally, I would like to ask you to answer some general questions about you and your daily life.

End of Block: Introduction general questions

Start of Block: Environmental concern

Please read the following statement:

In general, I am concerned about ...

Below, this statement is repeatedly finished with different endings.

To what extent do you agree with these statements?

Please check the boxes that best suit you. The possible answer categories range from 1 (Strongly disagree) to 7 (Strongly agree).

	1 (Strongly disagree)	2	3	4	5	6	7 (Strongly agree)
the environmental impact of my actions	○	○	○	○	○	○	○
degradation of nature	○	○	○	○	○	○	○
air pollution	○	○	○	○	○	○	○
climate change	○	○	○	○	○	○	○
overpopulation	○	○	○	○	○	○	○

End of Block: Environmental concern

Start of Block: Personal details

Please read the following question:

How often do you order clothes online?

Please check the box that best suits you.

The possible answer categories range from "Never" to "Weekly".

- ○ Never
- ○ Yearly
- ○ Every half-year
- ○ Monthly
- ○ Weekly

Please read the following statement:

In daily life, I sometimes order multiple sizes of the same item with the intention of sending some of them back.

To what extent do you agree with this statement?

Please check the box that best suits you. The possible answer categories range from 1

(Strongly disagree) to 7 (Strongly agree).

- ○ 1 (Strongly disagree)
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 (Strongly agree)

Please read the following statement:

In daily life, I sometimes order multiple different items with the intention of sending some of them back.

To what extent do you agree with this statement?

Please check the box that best suits you. The possible answer categories range from 1 (Strongly disagree) to 7 (Strongly agree).

- ○ 1 (Strongly disagree)
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 (Strongly agree)

Page Break

What is your gender?

- ○ Male
- ○ Female
- ○ Non-binary / third gender
- ○ Prefer not to say

What is your age? I am .... years old.

_____

End of Block: Personal details

Start of Block: Open remarks

I would once again like to thank you for participating in this survey. Your answers really help me to finish my master's thesis and are thus much appreciated!

If you have any remarks about the survey you just completed, you can leave them here.

_____

_____

_____

_____

_____

End of Block: Open remarks

Start of Block: Raffle

If you want to enter the raffle to have a chance at winning the €20.- Bol.com voucher, please enter your e-mail address or Instagram handle.

Your answer here will be separated from the rest of your answers, meaning that even though you wish to participate in the raffle, your previous answers will still remain anonymous.

If you do not want to participate, you can leave the field empty.

End of Block: Raffle

End of Survey

APPENDIX 2: IMAGES OF EXPERIMENT MERCHANDISE SELECTION

Chino - beige
€49.95

Chino - blue
€52.95

Straight leg jeans - comfort fit

€49.95

Jeans - slim taper fit
€54.95

Flared pants - blue
€49.99

Jeans - blue, straight leg
€54.95

Jeans - light blue, relaxed fit
€53.95

Jeans - black, skinny fit
€49.95

Grey sweater
€49.99

Red sweater
€59.99

Blue sweater
€35.00

Black sweater
€52.00

Beige sweater
€44.95

Green sweater
€50.00

Brown hoodie
€35.99

White sweater
€49.95

T-Shirt - green
€20.00

Polo shirt - navy blue
€18.99

T-Shirt - striped
€24.95

T-Shirt - red/black striped
€21.99

T-Shirt - striped
€19.99

Shirt - black
€50.00

Top black
€25.99

Top striped
€19.99

APPENDIX 3: IMAGES OF MANIPULATION POP-UPS

Control manipulation pop-up:

Informing manipulation pop-up:

Rewarding manipulation pop-up:

APPENDIX 4: SCALE ITEMS FOR THE MEDIATORS

Shopping at Webshop X motivated me to…	**Factor loadings**
1. Try to reduce my environmental impact	.812
2. Search for environmental-friendly ways to shop	.914
3. Try to reduce my share in bad labor conditions	.909
4. Search for fair-trade products	.831
5. Try to save time	.816
6. Search for efficient ways to shop	.876
7. Try to receive a discount	.717
8. Search for a good deal	N/A
9. Try to find unique items	.828
10. Search for beautiful clothes	.856

APPENDIX 5: SCALE ITEMS FOR CUSTOMER SATISFACTION

Webshop X…	**Factor loadings**
1. Served me well	.831
2. Was a satisfying place to shop at	.830
3. Provided an adequate selecting of merchandise	.753
4. Provided good service	.724
5. Had reasonable prices	.675

APPENDIX 6: SCALE ITEMS FOR ENVIRONMENTAL CONCERN

In general, I am concerned about…	**Factor loadings**
1. The environmental impact of my actions	.877
2. Degradation of nature	.894
3. Air pollution	.896
4. Climate change	.887
5. Overpopulation	.648