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ORIGINAL PAPER

Consumer Behaviour in a Circular System – How Values Promote and Hinder the Participation of Young Adults in the Swedish Deposit-Refund System for Beverage Packaging

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Abstract
This study contributes to the understanding of how values promote and hinder circular consumer behaviour by examining and learning from the Swedish deposit-refund system for beverage cans and PET bottles. We have used the consumption value theory in our analysis, building on the concepts of circular economy, sustainable consumption and recycling. Data was collected from focus group interviews with young adults in order to identify and explore the ways that values promote and hinder participation. Functional values were found to be at the core of sustainable consumption as a result of financial incentives and the fact that consumers value convenience. The study also highlights the importance that young adults place on emotional values, in particular embarrassment, which hinders them from recycling. When it comes to sustainable consumption, young adults are driven by selfish behaviour, prioritising personal comfort. Social settings were also found to promote and hinder participation in the deposit-refund system. The study finds that an understanding of the reasons why different social groups and age groups approve or disapprove of participation in circular solutions may help design solutions to increase participation in circular solutions and circular economies. The results show that it is important to study the combinations of value dimensions to understand consumer behaviour in a circular system fully.

Keywords Sustainable consumption · Consumer behaviour · Circular economy · Deposit-refund · Recycling · Young adults

Introduction

Sustainable consumption has been identified as a key requirement for sustainable development [1], with consumer behaviour having a unique role in the shift towards sustainable consumption [2]. Although consumers play a key role in a circular economy, alongside

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governments and companies, they are rarely considered to be enablers of a circular economy [3]. When they are, they are seen as being passive and rational recipients who will comply with labels and any other signals printed on products when making decisions [4]. However, shifting consumer behaviour towards sustainable consumption requires understanding both the consumer as an individual and their circular behaviour or practices. Indeed, understanding individual consumer behaviour is crucial for core circular economy strategies such as reuse and recycling, the success of which depends on the sustained behavioural change of individuals and environmentally co-operative behaviour [5].

As individual consumers, our behaviour has an unprecedented impact on our environment [6]. Although many individuals are aware of sustainability issues, their behaviour does not necessarily reflect this awareness. In fact, this inconsistency between what individuals say and do is one of the biggest challenges in promoting sustainable consumption [2]. As such, the preferences and decisions of consumers can make a difference to sustainability and environment. This understanding has been discussed in relation to what promotes participation [7] or what hinders [8] participation in a recycling system. Some of the literature finds that young adults, especially, consider themselves to be environmentally aware [9]. However, as discussed, considering oneself as being environmentally aware is not the same as making environmentally aware decisions [10]. That in turn means that even though young adults are engaged in pro-environmental activities, research finds that they are driven by different kinds of values [11].

Previous studies have engaged in environmental concerns and discussed consumers and environmental values [12]. More specifically, previous literature has focused on the role of environmental values in sustainable consumption [6, 13–15]. However, the literature on environmental values within sustainable consumer consumption is more scarce and less consistent [16]. For instance, some studies suggest that there are positive relationships between the willingness of consumers to purchase sustainable products and their environmental values [17, 18], while other studies find that these relationships do not exist, see for instance Röös and Tjärnemo [19] who find that consumers have other reasons for not behaving accordingly and Shao et al. [20] who study barriers that hinder consumers buying environmentally friendly products. This would suggest that environmental values in themselves cannot fully explain consumer behaviour within sustainable consumption. In fact, Mohd Suki [12] finds that other values are just as important as environmental values when individuals are considering sustainable consumption. Trying to make sense of different concepts used in the literature on environmental values, Thøgersen et al. [18] have discussed a typology of approaches to values such as values as the magnitude of preference, as a contribution to a goal, as relations or as individual priorities. Following in this vein, this study finds that environmental values are based on values that individuals possess and that individual values drive all human action [21]. In response, this study analyses choices made by individuals based on their perceptions of consumption values that are associated with certain market choices [22] in order to understand consumer values [23]. This study uses the value construct by Sheth et al. [22] as it provides a solid foundation for studying consumption behaviour and because of its comprehensive foundation in theory and research within other disciplines such as economics, psychology, political science, marketing and consumer behaviour [24, 25].

It is particularly important to understand the factors that promote and hinder circular consumption behaviour and practices among young adults, as it is at this age when recycling patterns are created, which will prove difficult to change later in life [26]. Young adults are also the generation of the future, so they will have to deal with the challenges of climate change during their lives. Moreover, young adults are more concerned about the

environment but at the same time less likely to adopt pro-environmental behaviours [27]. Considering that young adults constitute the future generation and will be the main driving force of society, engaging them in initiatives aimed at reducing the consumption of bottled beverages is crucial.

This study aims to add to the literature by providing a holistic view of sustainable consumption. We do so by analysing a well-established circular system, the Swedish deposit-refund system for beverage cans and polyethylene terephthalate (PET) bottles. Also, it has been argued that it is urgent to build suitable, efficient and convenient recycling systems to improve the recycling rate of beverage packaging [28]. The Swedish deposit-refund system has provided such a system since the start in the 1970s. The Swedish beverage deposit-refund system includes all ready-to-drink beverage (mostly PET) plastic and metal (aluminium) containers. The beverage includes beer, soft drinks, cider, bottled water, juice and wine. Dairy containers are not included in the system.

Sweden is a leading country in the deposit-refund industry, with the handling of more than 2.4 billion containers annually [29]. Because of the system, Sweden has saved energy and contributed to the reduction of the use of the earth's resources, while also reducing emissions of carbon dioxide by around 180,000 tonnes CO_2e [29]. Even though the Swedish deposit-refund system is robust, reliable and effective, where 85% of all the bottles and cans are returned [29], there are challenges around collecting the remaining 15%.

In this study, we argue that the behaviour of participation in a circular economy depends on the underlying values of the individual. Therefore, we incorporate knowledge about individuals' values and show how these values influence the behaviour of participation in a circular economy, more specifically the Swedish deposit-refund system for beverage cans and PET bottles. To explore the range of values that motivate individuals to participate in a circular economy, we draw on research on sustainable consumption behaviour, environmental values and recycling.

The purpose of this study is to understand how values promote and hinder sustainable consumer behaviour in a circular system by analysing the Swedish deposit-refund system for beverage cans and PET bottles. The study answers the question of *how values promote and hinder the sustainable consumer behaviour of young adults in the Swedish deposit-refund system*.

Literature Review

Sustainable Consumption Behaviour

It has been argued that to achieve sustainable consumption and production, a holistic consideration of the full product lifecycle is necessary [1]. This entails considering consumer behaviour not only at the point of purchase, but also throughout the entire lifespan of the product to gain a holistic understanding of sustainable consumption. One limitation in literature is the fragmented approach that focuses on studying 'moments' in the lifecycle of a product or service. Co-production, purchase, use and disposal are not only part of separate studies, but also as studies embedded in different literature. Consequently, many studies therefore examined single acts of purchase (e.g. fair trade coffee) or disposal (e.g. paper recycling) without considering their broader context within the overall consumer behaviour [18]. More recent literature is concerned with more than one point in time. One example of this is Zhang and Wen [30] who discuss consumers and recyclers. Also, there are a few

examples in the literature on recycling, such as Simon et al. [31], that discuss different kinds of beverage packaging materials (glass, aluminium, PET, plastics) and analyse these materials in relation to a circular system. Greenwood et al. [32] also employ a more holistic view of the elements of consumption that they examine. The article by Greenwood et al. [32] analyses the environmental impacts of single-use, reusable and returnable containers for a takeaway food product. The study explores what kind of products and containers consumers are willing to reuse, how and why.

Food packaging and different kinds of materials have been studied by others. For instance, Otto et al. [33] have taken an interest in food packaging and sustainability and compare packaging materials or recyclability and reuse rate of packaging. Their findings indicate that consumer perception of packaging is different from the scientifically assessed environmental sustainability. Consumers judge the packaging materials by naturally looking at the material and design, suggesting that awareness should be considered to nudge a sustainable behaviour [33]. Yet, other studies argue for the importance of addressing the issue of reducing consumption. In a particular study, it is emphasised that efforts to reduce consumption should be directed towards young adults, who as a group have a high demand for bottled beverages [30].

Consumer decision-making in general tends to focus on maximising utility for the individual consumer [34–36]. However, sustainable consumer choices extend beyond immediate personal benefits, encompassing long-term benefits for society and the environment [4]. By altering lifestyles and consumption patterns to align with the needs and aspirations of the future generations, sustainable consumer behaviour contributes to sustainable development [37]. The literature on sustainable consumption behaviour explores the relationship between consumption and sustainable development and investigates the roles of consumers and various stakeholders in fostering this relationship [2, 38]. In the literature, sustainable consumption behaviour is defined as 'actions that result in decreases in adverse environmental impacts as well as decreased utilisation or natural resources across the lifecycle of the product, behaviour, or service' [2, p.23]. This definition is in line with how we see sustainable consumption behaviour in this paper.

Environmental Values in Sustainable Consumption Behaviour and Recycling Behaviour

When studying sustainable consumption, researchers have focused on the environmental values of individuals [13]. For instance, Stern et al. [13] and Stern and Dietz [6] studied three value bases for environmentalism: egoistic (self-interest), social-altruistic (concern for other human beings) and biospheric values (concern for non-human species). Others have built on these studies and the relationships between environmental values, for instance, the concern for oneself, others or the biosphere [13–15]. Van der Werff [15] in particular finds that biospheric values are an important predictor of self-identity and that environmental-friendly behaviour can be promoted by reminding people of their past pro-environmental values, further strengthening their environmental self-identity. However, Subiza-Perez et al. [39] find that consumers are less engaged in altruistic values, as most consumer behaviour tends to be more selfish. Other studies have examined gender differences in environmental attitudes and behaviours and found that women report stronger attitudes and behaviours than men [40]. Furthermore, literature has examined the values used in ethical consumer decision-making [23]. Also, more recent literature discusses the role of marketing in encouraging consumers to be more sustainable [2]. These authors suggest that

consumers are more inclined to engage in pro-environmental behaviour when the message or context follows psychological factors represented by the acronym SHIFT (Social influence, Habit formation, Individual self, Feelings and cognitions and Tangibility).

Sustainable consumption involves not only acquiring new items, but also other practices such as taking care of possessions, particularly when they come to the end of their life [1]. According to Latif et al. [41], there are positive correlations between environmental values and environmental behaviour. However, some argue that too much emphasis is placed on environmental values [42]. When individuals make decisions on the value of recycling compared to other actions, many factors are at play, including convenience. Indeed, in their literature review on sustainable consumption in the circular economy, Camacho-Otero et al. [4] find that although circularity is primarily based on functional values, such as convenience or deposit amount, the situation cannot be explained by functional value or utility alone.

The literature on environmental concerns uses the concept of values to discuss environmental values that promote participation in environmental behaviour, such as recycling paper, glass, packaging [43], bottles [44], waste sorting [45] or sustainable fashion [46], to name but a few. By studying the behaviour and recycling habits of individuals, Belton et al. [8], for example, were able to identify three main reasons for non-participation in recycling, including apathy, lack of interest in recycling and distance to recycling centres. When examining distance in more detail, the authors found that non-recyclers did not live further away than recyclers. The authors argue that this is a sign that distance serves as an excuse for non-recyclers. It may also indicate that different values are in play as individuals view the distance aspect differently when deciding whether or not to recycle. Similarly, certain individuals argue that they do not possess enough recyclables to engage in recycling, which means that they are making decisions based on the amount of effort compared with the value of recycling [47, 48]. This is particularly true in smaller homes which typically have less space to store recycling items [26]. The literature on recycling indicates that several value dimensions have to be taken into consideration when looking at the recycling behaviour of consumers.

Value Constructs

According to Biel and Dahlstrand [49] and others [21, 50], values are defined as 'desirable trans-situational goals, varying in importance, that serve as guiding principles in the life of a person or other entity' [51, p. 21]. This study uses the consumption value theory (CVT) proposed by Sheth et al. [22] as a theoretical framework. These authors examined five value types that make differential contributions that are additive or incremental in any given choice situation, and that help explain why consumers choose to buy or not buy a specific product, why they choose one product over another and why they choose one brand over another. This concept builds on theory and research from a variety of disciplines, such as economics, psychology, political science, marketing and consumer behaviour. The five independent values that have been identified are functional value, conditional value, social value, emotional value and epistemic value [22]. In their study, Sheth et al. [22] argue that a decision can be influenced by one or all five consumption value dimensions. CVT [22] was chosen for this analysis because it incorporates many of the factors that have been shown to influence not only consumption and acquisition, but also circular end-of-life consumer behaviour, such as recycling [24].

The CVT covers the definition of environmental values for this study. The definition has been used in previous studies [12]. For example, it can be argued that convenience in terms of effort, time and financial factors [52] is a form of functional value for an individual. Whereas models that have previously been applied have taken social influence into account, for example through norms [2, 52], Sheth et al.'s [22] framework includes social value, which is the value an individual derives from seeking group membership through their behaviour. In addition, situational factors that may enhance or reduce the value of an alternative are considered based on conditional value. In their study, Sheth et al. [22] argue that the five consumption value dimensions make different kinds of contributions, depending on the context. In this study all five dimensions are considered.

CVT [22] has been applied and tested [24, 37]. For instance, in Sweeney and Soutar's [24] study of durable goods consumption, functional value, emotional value and social value were found to be particularly important in pre-purchase and post-purchase situations. More recent studies of consumer behaviour and green products have used CVT and have defined these value types as functional, social, conditional, environmental and knowledge value [37]. These authors argue that the consumers' desire for knowledge about product attributes and novelty has a favourable impact on consumer behaviour to buy such products. In their study, social value—followed by knowledge value—predicts sustainable consumption. The results are supported by Mohd Suki [12], who found that social value was the most dominant influence on consumer decisions to buy green products, followed by epistemic and functional values. However, Mohd Suki [12] identified differences between heavy users compared to light and average users of green products. The authors [12] argue that heavy users believe that buying green products creates a good impression on others, whereas light and average users do not. Similar results were found in Thomas and Sharp [53].

This study adds to the body of literature that uses CVT by showing how it can be used to study a holistic view of sustainable consumption such as purchase, consumption and end-of-life consumer behaviour and recycling. In terms of sustainable consumption, literature has focused on environmental or ethical values [6, 13, 20]. However, this study argues that other values are in play when individuals consider sustainable consumption [12, 25]. Indeed, this study supports Mcdonald et al. [54], who argue that there are inevitable trade-offs between 'green' and conventional criteria for consumers. In this study, values are looked at both individually and jointly when examining the decision-making of individuals in this context. In line with Sweeney and Soutar [24], it is argued that no singular value, or dimensions of value, will explain the decision to participate in sustainable consumption or recycling behaviour within the deposit-refund system; instead, there will be several. This study explores value dimensions and additional characteristics of each value dimension. Value dimensions and characteristics are summarised in Fig. 1.

Methodology

Case Study

This study considers the consumer both at the point of purchase and consumption, but also at the product's end-of-life and potential recycling. It does so by studying individuals who regularly purchase beverages, some of which are included in the deposit-refund system in Sweden. There are various reasons for our interest in the Swedish deposit-refund system: it is a system in Sweden that involves producers, the government and consumers; it has been in operation since the 1970s; it is also a robust, reliable and effective system, with 85% of all of the bottles and cans that are

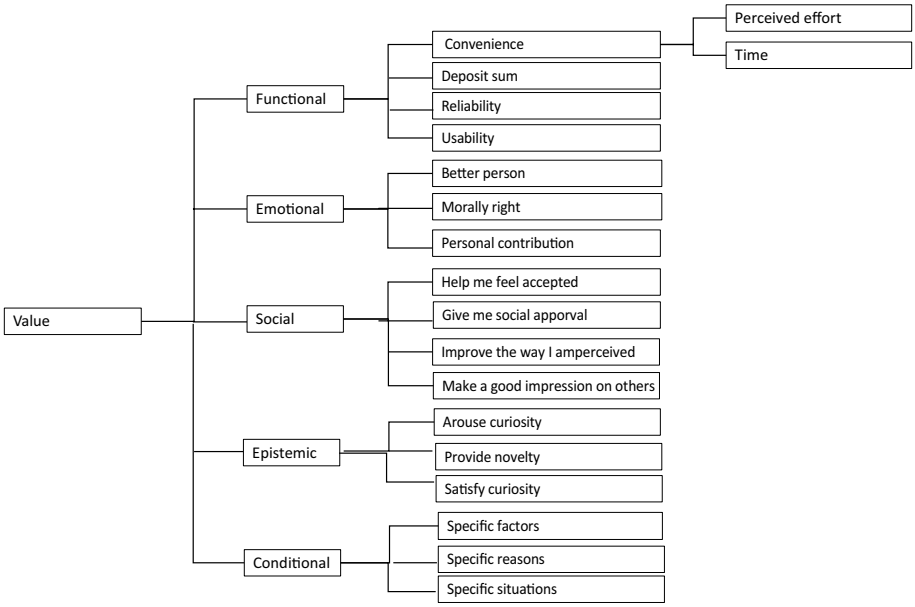

Fig. 1 Value constructs

produced being returned compared to 25% of all materials in Sweden [55]. Furthermore, the Swedish deposit-refund system offers a core circular strategy—recycling—and it is essential to continue building appropriate and efficient recycling systems to improve the recycling rate for single-use products, such as beverage packaging [28].

Sweden's mandatory deposit-refund system started in the 1970s when refillable glass bottles began to be replaced by single-use beverage packaging. This change in packaging led to increased littering which resulted in a strong political movement in Swedish society [56]. This movement led to the launch of mandatory deposit-refund systems for metal cans in 1984 and PET bottles in 1994 [56]. Currently, manufacturers of PET plastic bottles and metal beverage cans that are intended for the consumer market in Sweden must ensure that the bottles and cans are included in the deposit-refund system [57]. Dairy and juice products are excluded from this government regulation, but juice producers have recently identified competitive advantages in adopting environmentally friendly packaging and are voluntarily entering the deposit-refund system.

The return stations are located at supermarkets. Consumers return bottles and cans into a machine and can choose whether to obtain a receipt to receive the deposit money back or to donate the money to charity. If the customer chooses a receipt, they can use the deposit money in store or exchange it for cash from the cashier.

Returpack AB and Kantar Sifo[1] regularly conduct online interviews in order to monitor consumer behaviour and to increase the percentage of returned containers. The sample of respondents is taken from a panel of participants identified by Kantar Sifo [58]. The data

[1] Swedish company experts in market research, media and opinion polls. Kantar Sifo is well-established in its field and the company has been in operation since 1954.

Table 1 Number of interviews

Year	2013	2014	2015	2017	2019
All	1002	800	821	820	821
Men 16–29	250	200	205	205	202
Women 16–29	250	200	205	205	209
Women and men 30+	502	400	411	410	410

was collected in 2013–2015, 2017 and 2019. The sample is representative on a national level (age, gender, region).

As can be seen in Table 1, more than 4000 interviews have been conducted since 2013, and young adults, women and men have been singled out to provide information about their consumption habits. The results of these interviews show that the average consumption of PET bottles and cans is about 17 containers a month and that young men (aged 16–29) represent the largest consumption group with a consumption of about 19 containers a month [58].

Studying different types of containers, the data show that the consumption of cans and small PET bottles has increased since 2013. Large PET bottles have remained at the same level since 2017. In 2019, the rate of returned containers was 90%, which was the same as in 2017. The rate of returned containers is highest among individuals aged 30+ (92%) and lowest among young men aged 16–29 (80%) [58]. However, this difference has been getting smaller since 2013. According to Returpack, this is a result of marketing activities that target young adults, such as information and education campaigns.

In terms of the kinds of beverages young adults consume, the study shows that young adults, especially young men, consume soft drinks and energy drinks. However, young women are large consumers of low-calorie soft drinks and cider. All in all, young adults (particularly young men) are large consumers of beverages but appear less motivated to return containers. The data also shows that both young men and young women are less eager to return containers compared to women and men aged 30+. Together, this makes young adults an interesting group to study. Thus, while one can study engaged participants and learn how to increase their engagement in the system, we here focus on low to non-participants to understand barriers and entry for participating in the circular system.

Focus Groups

As the aim in this study is to *understand how values promote and hinder the sustainable consumer behaviour of young adults in the Swedish deposit-refund system*, we have sought to collect data from several individuals simultaneously and use the interaction and dynamics emerging in groups to offer new insights into the topic. Consequently, the qualitative method focus groups were considered appropriate. Focus groups enable a group of individuals to discuss a specific topic and at the same time gather data from multiple respondents. Using a qualitative method, such as focus groups, enables a discussion about values and how different values interact, which leads to a deeper understanding of values in this context. In the focus group, different voices can be expressed, and different perspectives of a specific topic can be discussed. The intention is to achieve an interaction between the individuals in the focus group as this is central in the method; however, it is not easy to achieve [59]. Groups naturally respond to one and another, joke and explore a given subject. These

interactions and dynamics in the group offer new insights into the topic under investigation [60] which are important for the study aim.

In our focus groups, both recyclers and non-recyclers discuss their motivation, purchasing and recycling practices. There are concerns in the literature that self-reported accounts of recycling do not equate to actual behaviour. Recycling norms, for example, may encourage respondents to respond in a socially desirable rather than accurate way [61]. We did not observe this phenomenon as our groups included a mix of both recyclers and non-recyclers. Because of this variety in recycling behaviour, there was no dominant recycling norm in the focus groups. Moreover, despite the fact that the Swedish society arguably holds the injunctive norm that people should recycle, the non-recyclers did not hide their non-participation, despite the fact, for example, that they were paid a small sum to participate in the focus group.

The empirical data is taken from focus group interviews conducted in February and March 2020. Each focus group comprised between eight and ten participants aged 15–28 from both urban and suburban areas in Sweden. A total of seven focus group interviews were conducted with 47 participants (22 female and 25 male). Four focus groups were conducted before the COVID-19 pandemic [45] (WHO, 2020) and were therefore conducted face-to-face: two in a medium-sized city in Sweden[2] and two in the capital of Sweden.[3] The respondents in these four focus groups were in the 15–20 age group. Three focus groups were conducted during the COVID-19 pandemic and were therefore conducted online using Zoom. These three focus groups included participants from different cities: Umeå, Uppsala, Gothenburg and Lund.[4] These respondents were in the 19–28 age group. Every session followed a semi-structured protocol of individual behaviours and group discussions. Appendix 1 provides more information about the respondents in the focus groups.

Participants included young adults, both individuals living with their parents and individuals responsible for their own household. The participants from the face-to-face focus groups were recruited using The Youth Barometer (Ungdomsbarometern).[5] These respondents were given a small payment for taking part in the session (SEK 500, which is the equivalent of approximately EUR 50). The three other focus group participants were recruited through a university and did not receive any payment. Each focus group session lasted for about 2 hours with a short break after 1 hour. Every session followed a semi-structured protocol of individual questions and group discussions. Audio and video recordings of the discussions were used to transcribe the sessions. Table 2 offers an overview of the sample.

The questions asked to the focus group were based on real-life situations that young adults face, so that their responses were linked to the real lives of these adults. It is important to note that this study relies on self-reported recycling, which correlates to, but does not equate to, observed recycling behaviour [61].

Questions were prepared in advance and were used to facilitate the discussion (for questions see Appendix 2). All participants were asked sequentially to ensure that everyone answered the question and provided information about their consumption behaviour and values. The interviewers were fully versed in the theoretical framework of the study. The

[2] Coded as A1 and A2 in Appendix

[3] Coded as B1 and B2 in Appendix

[4] Coded as C1–C3 in Appendix

[5] The Youth Barometer specialises in working with young adults and adolescents, handling large data sets and interviews.

Table 2 Profile of the sample

	A1	A2	B1	B2	C1	C2	C3	Total
Number	10	8	8	8	4	4	5	47
Male	5	5	5	4	1	1	4	25
Female	5	3	3	4	3	3	1	22
Age	16–19	15–18	16–19	16–20	21–24	22–24	22–28	15–28
F2F/online	F2F	F2F	F2F	F2F	Online	Online	Online	
Urban/suburban	Suburban	Suburban	Urban	Urban	Mixed	Mixed	Mixed	
Living arrangements	Parents	Parents	Parents	Parents	Own	Own	Own	
Payment	Yes	Yes	Yes	Yes	No	No	No	

researchers were also watching the interviews live to ensure that the questions were fully discussed and they were able to instruct the moderator to ask follow-up questions during the session. Audio and video recordings of the discussions were used.

The transcripts were coded and analysed using NVivo 12. The coding was implemented in different steps. The first step involved identifying value dimensions and characteristics as described in Fig. 1. Positive and negative issues, feelings and behaviours were then identified for each value dimension and characteristic. For each focus group, there were between 195 and 282 different references. References from this coding are shown in Appendix 3.

Results

This section explores the values that promote and hinder circular behaviour and discusses the characteristics of these individual values. It also contains a discussion on how combinations of values and value characteristics work together to promote and hinder circular consumer behaviour.

When Values Promote Circular Behaviour

Functional value is based on the theory of and research into utility, attributes and needs. When studying the characteristics of functional values, it is clear that convenience strongly promotes circular consumer behaviour. Convenience is an important driver at different stages of the system, such as at the point of purchase or when collecting, storing and returning containers. For instance, when young adults are at home, they usually have a system in place that makes it convenient to collect and store bottles and cans before returning them later. Convenience is also about someone else taking the trouble of returning the containers, such as a parent or teacher at school. When young adults consume beverages at home, it is convenient to collect the containers and then return the containers to the supermarket to collect the deposit when they have the time or when the bag with the containers is full. Most of the young adults in the study use this system for collecting and storing containers in their household or family. Some schools also have special collection bins, which facilitate collection and storage during school hours.

Usability also promotes circular consumer behaviour, as the design of the packaging and clean return stations are important for participation. The design of the packaging is

an important driver for usability, as if the bottle can be resealed, young adults find it easy to store the bottle in a locker at school or in a bag for returning later. Bottles that can be resealed are not perceived to be 'smelly', and any residual contents do not 'drip' the way cans do. Bottles are considered to be cleaner than cans because they can be resealed. Similarly, if young adults think that the return stations are clean and efficient, they will not be hindered from returning containers because of unclean and messy return stations.

Another characteristic of functional value is the deposit amount. Although the deposit amount promotes circular consumer behaviour, it is not a strong predictor for returning containers by itself, because young adults do not always collect these containers. They might give them away for a good cause or just throw them away. Some argue that if the deposit was higher, it would be 'worth the trouble' of returning the bottles and cans to the supermarket. This means that young adults consider the perceived effort before deciding whether or not to return containers; and if the perceived effort is low, they will participate. Another characteristic of functional value is reliability. In this study, the deposit-refund system is perceived as being highly reliable, trustworthy and functional by young adults. Although the machines sometimes do not work, this does not present a major problem for the young adults in the study, as they can return their bottles and cans another day.

Emotional value is associated with specific feelings or affective states, such as comfort, or when precipitating or perpetuating these feelings. Emotional value is known to influence consumer behaviour when making market choices and can be both positive and negative, for example, feelings of loyalty or excitement as well as fear or anger. When examining the characteristics of emotional values and the ways in which they promote circular consumption, it was found that feeling like a better person or morally right and making a personal contribution promote circular consumer behaviour. Most of the young adults want to do the right thing and return the containers because they feel that it is important for the environment. Doing the opposite 'hurts their conscience'. Young adults feel good about themselves when they return these containers and 'take care of the environment'. Some young adults in the study also feel good about themselves when giving the containers to a charity or a beggar outside the supermarket. Donating containers to charity feels like doing a good deed. Among the young adults who expressed feelings of caring for the environment, some feel angry when friends drop bottles or cans on the ground: 'We adopt a sustainable approach at our school, and they [friends] just don't care. This irritates me'. Some claim that they sometimes pick up after others (friends or strangers) when they see someone littering. The emotional trigger is 'having a clear conscience'.

The perceived social value derives from an association with specific social groups, for example demographic, socioeconomic and cultural/ethnic groups. An identification with a social group can be both positive and negative. An individual driven by social value will choose an alternative that fits with their desire to belong to or abstain from a social group. Depending on their social identification with different groups and the level of their need for social acceptance, consuming specific beverages and returning bottles or cans can therefore strengthen their social value. This is because young adults strive to feel accepted, leave a good impression on others and be socially approved. Some argue: 'I think people just want to look good, even though they don't care', meaning that returning containers creates a good impression on others. Similarly, in socioeconomic areas where people are '*rich*' and have good jobs, returning containers is seen as something good that strengthens their social status. By returning containers, they show others that they care about the environment, thereby strengthening their social value. In these areas, returning bottles and cans is seen as something admirable that leaves a good impression on others. When young adults are at home, they do not experience peer pressure from friends and will behave according

to family routines. Young adults also express feelings of loyalty towards the deposit-refund system, which promotes circular consumer behaviour. Most of the young adults in this study have been returning bottles and cans since they were children and this sense of loyalty to the deposit-refund system is connected with a sense of belonging to a social sphere, which strengthens their social value.

When examining the characteristics of conditional value, it was found that specific reasons or projects, such as saving money for a school trip or raising money for children in other parts of the world 'for a good cause', motivate young adults to return containers, which promotes circular consumer behaviour. Specific situations also promote participation in the circular economy. If someone organises a collection of containers, young adults are likely to return their bottles or cans: 'In my class at school, we have a locker where we collect bottles and cans, and once a month, we return them and add the deposit to our class account'. Some schools also help foster the behaviour of returning containers by, for instance, installing facilities, such as bins, for returning containers within the school environment.

Most of the respondents do not believe that the deposit-refund system provides epistemic value because it has become a habit to return containers: 'It's something I just do. It's like eating breakfast – I just do it'. Some explain that: 'When I was young, it was fun to return containers, kind of exciting, the highlight of the week'. There is also a new system at some stores, which provides some novelty to the system; some said that although it was interesting, it would not encourage them to return a greater number of containers. Table 3 summarises how values promote circular behaviour among young adults.

When Values Hinder Participation

The data shows that circular consumer behaviour can be hindered. When examining functional value, it was found that inconvenience could be an obstacle, as there are different situations or contexts when it is inconvenient to store or return containers, such as when young adults are in town with their friends, or when they have to store containers in bags or in their locker at school. If returning or storing containers is inconvenient, young adults do not care about the deposit amount or taking care of the environment. Time also seems to be a major obstacle to the participation of young adults in the deposit-refund system, as they value their own time highly. Some individuals do not return their bottles or cans at all because they feel they do not have the time to do so. Some young adults who live at home with their parents find it 'a waste of time' to return containers because of the time it takes to walk to the supermarket. These young adults would argue that they do not have the time, as they 'have to study and all that'. They would prefer it if someone else took the time to return the containers for them. As discussed, perceived effort influences circular consumer behaviour, and if the perceived effort is high, young adults argue that 'they just can't be bothered to do it', which means that walking 500 m to return just one bottle or can is not an option. Indeed, most young adults in this study would not return just one container. They argue that the minimum number to take to the store is about ten cans or bottles. Taking fewer than that is not 'worth the hassle'. Another characteristic of functional value is usability, and in this respect, unclean stations could also be an obstacle for returning the containers, as young adults want the station to be clean and not 'smelly'. Cans which have contained alcohol, such as beer, are considered to smell and have a negative effect on the environment at the station: 'The environment is not really Instagram friendly', argues one participant.

Table 3 Values promoting circular behaviour

Functional	Emotional	Social (depending on social group)	Conditional	Epistemic
Convenience	Feeling like a better person	Help to feel acceptable	Specific reasons or projects	Habit
Usability	morally right	Social approval	Specific situations	
Reliability	Feel good about themselves	Improve perception	School	
Trustworthy		Make a good impression		
Deposit amount				

Table 4 Values hindering circular behaviour

Functional	Emotional	Social (depending on social group)	Conditional	Epistemic
Inconvenience	Apathy	Decreased acceptance	Travelling	-
Time	Lack of interest	Decreased social approval	'Out and about'	
Perceive effort	Embarrassing	Decreases how I am perceived		
Usability		Make a bad impression on others		
		Peer pressure		

The emotional value in terms of apathy, lack of interest or embarrassment further hinders circular consumer behaviour. Some young adults say that they 'just don't care' about collecting the containers. As one argues: 'I have friends who are very conscious and all that. They get really angry if we don't put containers in a return station or a bin'. When storing or returning containers becomes 'embarrassing', young adults do not participate in recycling behaviour. Embarrassment was considered to be a strong characteristic of emotional value that hinders circular consumer behaviour among this group.

When examining the social value dimension, the act of returning containers to get the deposit back was associated with being 'poor, greedy, or something that children and old people do'. When returning containers, some of the young adults do not want anyone to see them carrying bottles and cans, since returning containers is associated with being poor. This behaviour is expressed by young adults living in socioeconomic areas that have many immigrants. In these areas, returning containers is associated with poverty and beggars. 'I'm not ashamed, but… among immigrants, it's not normal to return containers. It's seen as something poor people do, since there are a lot of people from Romania who collect bottles and cans to return to receive the deposit in our neighbourhood. It's more like a status thing for an individual'. Others agree: 'People from my culture [the Middle East] talk a lot, and "things" do the rounds. That's why we don't return containers, which is bad since we are destroying the environment'. This statement indicates feeling guilty about not returning the containers. The social approval of participating in the circular system is low, and one girl says that 'It can be a problem for the family if people talk', meaning that people gossip.

Furthermore, peer pressure hinders young adults from returning containers. Young adults are influenced the most by their friends, and when friends throw containers away without thinking about the deposit or the environment, others follow the same pattern: 'Peer pressure, since everyone throws them away, then you throw them away yourself'. However, some young adults will behave differently in different social spheres, since peer pressure is strong in some social spheres, for example being with friends and family or being in specific environments.

When examining conditional value, young adults are hindered from participating in the circular consumer behaviour in specific situations, for example, when they are travelling or when they are 'out and about' with their friends, as mentioned earlier.

Epistemic values do not hinder young adults from returning containers. The deposit-refund system simply does not arouse any specific curiosity or provide any novelty among young adults. Returning containers is not a 'fun activity'; it has been a habit since childhood. Table 4 summarises how values hinder circular behaviour among young adults.

How Values Interact

The analysis identifies how combinations of value characteristics work together to promote circular behaviour. Not only can values promote a particular behaviour, but they can also promote conflicting behaviour. In these kinds of situation, one value may trump another. In addition, value dimensions can be traded off against each other or triggered in some situations.

Combinations of social and emotional values tend to strengthen a behaviour, both positive and negative. Negative emotions often arise as social norms are broken. For example, when young adults take containers to the supermarket, their emotional value may be triggered, as some of them do not want anyone seeing them carrying bottles and cans. Some feel 'embarrassed' because returning containers is associated with being poor and will lower their social status. However, it is also important to recognise that some young adults do not feel embarrassed and therefore are not hindered from returning their containers by this combination of emotional or social values. For these young adults and their social environment, returning containers shows that they are doing something good, doing the right thing for the environment and have a clear conscience. In these instances, the combination of social and emotional values promotes participation in the deposit-refund system. It appears as though the social context has an impact on whether the combination of social and emotional values promotes or hinders participation. In both cases, it is the social values attributed to returning containers (poverty or environmental consciousness) that determine whether the emotional value of doing so will be embarrassing (breaking norms) or a source of a clear conscience (following norms).

Convenience, as a characteristic of functional value, can hinder negative emotions and strengthen social value; for example, taking the car to return containers is both convenient, socially accepted and does not trigger embarrassment (emotional value). Taking the car with a large collection of containers is something that the family does together, for example, when they are doing their food shopping. Returning containers this way becomes 'a family thing', which strengthens the social value. It is also convenient to take the car rather than the bus and to help each other with the containers. Young adults agree that taking the bus to the supermarket and carrying a lot of bags with bottles and cans on board are inconvenient, potentially embarrassing and less socially accepted.

The empirics also include instances of trading one value against another. For example, young adults are willing to trade a functional value (the deposit amount) for an emotional value (feeling good about themselves). If they give the containers to someone else who really needs the money, young adults feel that they have done a good deed; it feels like they are giving the money to charity and they feel good about themselves. One young adult explains that 'it is important for me to feel that I'm getting something back' when giving the containers to charity.

However, there are certain circumstances when different values or value characteristics trump each other. For instance, when 'being broke', then the functional value (deposit amount) becomes a priority: '… at the end of the month, when all the bills are due and I have a lot of bottles and cans, then I can spend the money on rice or something'. This means that the functional value of the deposit trumps other characteristics associated with functional value (inconvenience) due to the conditional value of 'being broke'. In these cases, different characteristics of functional value may collide, but conditional values result in one aspect of functional value (deposit amount) trumping another (inconvenience).

Concluding Discussion

Individual behaviour is crucial to the success of circular economy solutions. This study adds to the understanding of consumer participation by exploring the participation of young adults in a circular system: the Swedish deposit-refund system for beverage cans and PET bottles.

The study shows that values both promote and hinder sustainable consumption, and that no single value type dominated any other value in terms of promoting or hindering sustainable consumption behaviour. Instead, it was found that it is important to study combinations of values and value characteristics because combinations of values work together to reinforce or hinder a behaviour. With these combinations, values mutually promote and hinder consumer participation in the circular deposit-refund system. The study finds that combinations of values and characteristics can trigger, trump or be traded off against each other.

Sustainable consumer behaviour is promoted by functional value characteristics such as convenience (perceived effort and time), price (deposit amount), usability and reliability. Convenience was particularly important for the young adult consumer group, which is the one that has been studied here. Convenience is considered to be a key determinant of recycling behaviour [42, 47] and this study supports these findings. For example, convenience in the form of distance to the supermarket was a common reason for not returning containers due to the amount of time and effort it takes; similar results have been found in Belton et al. [8] and Ojala [26], who also studied the behaviour of young adults.

The study finds that financial incentives (the deposit amount) were not a strong driver on their own to promote recycling behaviour. However, the deposit amount can be traded off against other values, such as emotional or social values. The impact could depend on the amount of the deposit, which implies that changing the deposit amount could cause a change in the behaviour. This is a key finding, given the prevalence of financial incentive schemes in circular economy solutions. It is therefore important for the system to strike a balance between financial incentives and the combination of other values to promote circular consumer behaviour, while maintaining an acceptable percentage of returned containers. In Sweden, about 85% of all bottles and cans are returned. If this rate were to fall, the deposit amount might have to be adjusted. However, this does not appear to be the case. During the COVID-19 pandemic, the rate of reclaimed containers increased. This is probably a result of more individuals working from and staying at home, where it is more convenient to save bottles and cans for subsequent return, showing the importance of these consumer practices on circular consumer behaviour.

In many instances, social value seems to trump other values in our study. This finding is in line with Mohd Suki [12], who suggests that social value is a dominant influence on consumer decisions in environmentally friendly purchase situations. Building on previous literature, social values both promote and hinder participation in the circular system. When young adults find themselves in a social group where it is not socially acceptable to collect or return containers, other values such as functional (deposit or convenience) or emotional (doing the right thing) are not as important. Young adults are at an age when they strive for social acceptance [26] and returning containers can both promote and hinder the feeling of social acceptance, not only for themselves, but also for others in their social sphere, family or friends. If social acceptance or a feeling of social status is reduced, young adults are less likely to participate in the circular system. This is an important finding, but it does not mean that social acceptance or status will always outperform other values. For instance,

depending on the magnitude of a specific value, young adults will behave according to this value.

The study finds that CVT [22] is an appropriate tool for studying sustainable consumer behaviour. Even though the study found fewer values related to epistemic value, epistemic values cannot be excluded as they may be important in other contexts within the circular economy, for example, in relation to new and innovative systems. The lack of epistemic values could be due to the length of time that the deposit-refund system has been in operation, which means that there is little that is 'future driven' about the system.

This study contributes to the literature on values by showing that it is not possible to single out one specific value to shift consumer behaviour towards sustainability, or in our study, circular consumer behaviour. Previous literature on values shows that it is important to study several values simultaneously [4, 24]. This study not only supports these findings, but also argues that the most important step is to study the combination of values and value characteristics, because it is these values and characteristics that both promote and hinder consumer participation in a circular system.

When examining values and various combinations of values, it is clear that values can be trumped, traded off or triggered together with or against each other depending on the consumer behaviour in a particular situation or social setting. This study found that social values particularly trumped other values in this age group. Furthermore, it was found that the deposit amount could be traded off against emotional values and that emotional values can be triggered in social settings. This study indicates that some of these interactions between values may be related to the specific age group. We therefore encourage research to distinguish between different age groups, as we found social values (peer pressure) and emotional values (embarrassment) to be particularly strong among this consumer group.

There was some evidence of consumers prioritising environmental well-being over personal comfort. However, this was only in social settings where taking care of the environment is a shared social value, i.e. in settings where circular consumer behaviour reflects positively on the individual. In these kinds of settings, behaving in an environmentally friendly way may also be associated with positive emotional values; doing something good for the environment makes an individual feel good about themselves. These results support the findings of Subiza-Perez et al. [39], in that altruistic values are generally not shared in sustainable consumption behaviour. The young adults in the study are mostly driven by selfish behaviour, which supports the concept of classical utility maximisation. These findings were discouraging, given the expectations of a 'Greta effect' among this age group. It could also be argued that young adults in Sweden who live at home have a relatively convenient life and that an expectation for them to strive towards altruistic behaviour did not emerge. Despite this, it was found that 'selfish values', such as comfort and convenience, can promote circular consumer behaviour. Indeed, it is not only young adults who prioritise doing something good for the environment that participate in the circular system, as otherwise, the system would not achieve a recycling rate of 85%. This finding is encouraging because it shows that to understand sustainable consumption fully, the focus cannot only be on environmental values.

This study contributes to the literature on circular economies as it shows that financial incentives are not sufficient for individuals to participate in a circular system. Other values must also be considered and it is clear that values in combination can promote or hinder participation in a circular system. Knowledge about these combinations of values and an understanding of strengthening more than one value can assist in finding solutions to shift consumer behaviour towards sustainable consumption and to increase participation in circular systems. As shown in other studies, for instance, Muranko et al. [48], the findings

from this study further reinforce the need to understand the importance of social embeddedness within circular economies in order to achieve long-term circular solutions.

Some studies have found differences between women and men in relation to sustainable consumption behaviour [39, 40]. Although this study did not identify gender differences in terms of values, this cannot be excluded, and the recommendation is for future studies to address gender differences in this context.

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Declarations

Ethics Approval and Consent to Participate All interviews are ethically approved by participants.

Consent for Publication Not applicable

Competing Interests The author declares no competing interests.

References

1. Wang C, Ghadimi P, Lim MK, Tseng ML (2019) A literature review of sustainable consumption and production: a comparative analysis in developed and developing economies. J Clean Prod 206:741–754
2. White K, Habib R, Hardisty DJ (2019) How to SHIFT consumer behaviours to be more sustainable: a literature review and guiding framework. J Mark 83(3):22–49
3. Kirchherr J, Reike D, Hekkert M (2017) Conceptualising the circular economy: an analysis of 114 definitions. Resour Conserv Recycl 127:221–232
4. Camacho-Otero J, Boks C, Pettersen IN (2018) Consumption in the circular economy: a literature review. Sustainability 10(8):2758
5. Carlson AE (2001) Recycling norms. Calif Law Rev 89(5):1231–1300
6. Stern PC, Dietz T (1994) The value basis of environmental concern. J Social Issue 50(3):65–84
7. De Marchi E, Pigliafreddo S, Banterle A, Parolini M, Cavaliere A (2020) Plastic packaging goes sustainable: an analysis of consumer preferences for plastic water bottles. Environ Sci Policy 114:305–311
8. Belton V, Crowe DV, Matthews R, Scott S (1994) A survey of public attitudes to recycling in Glasgow (U.K). Waste Manag Res 12:351–367

9. Williams KC, Page RA (2011) Marketing to the generations. J Behav Stud Bus 3(1):37–53
10. Bergquist P, Warshaw C (2019) Does global warming increase public concern about climate change? J Politics 81(2):686–691
11. Mitchell B (2019) Generation Z & Consumer Trends In Environmental Packaging, pp 1–39
12. Mohd Suki N (2016) Consumer environmental concern and green product purchase in Malaysia: structural effects of consumption values. J Clean Prod 132:204–214. https://doi.org/10.1016/j.jclepro.2015.09.087
13. Stern PC, Dietz T, Kalof L (1993) Value orientations, gender, and environmental concern. Environ Behav 25(5):322–348. https://doi.org/10.1177/0013916593255002
14. Schultz PW (2001) The structure of environmental concern: concern for self, other people, and the biosphere. J Environ Psychol 21(4):327–339
15. n der Werff E, Steg L, Keizer K (2014) I am what I am, by looking past the present: the influence of biospheric values and past behaviour on environmental self-identity. Environ Behav 46(5):626–657
16. Tadaki M, Sinner J, Chan KM (2017) Making sense of environmental values: a typology of concepts. Ecol Soc, 22(1)
17. Liu Q, Yan Z, Zhou J (2017) Consumer choices and motives for eco-labeled products in China: an empirical analysis based on the choice experiment. Sustainability 9(3):331
18. Thøgersen J, Haugaard P, Olesen A (2010) Consumer responses to ecolabels. Eur J Mark 44(11/12):1787–1810
19. Röös E, Tjärnemo H (2011) Challenges of carbon labelling of food products: a consumer research perspective. Br Food J 113(8):982–996
20. Shao J, Taisch M, Ortega-Mier M (2016) A grey-DEcision-MAking trial and evaluation laboratory (DEMATEL) analysis on the barriers between environmentally friendly products and consumers: practitioners' viewpoints on the European automobile industry. J Clean Prod 112:3185–3194
21. Schwartz SH (1992) Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. Advances in experimental social psychology, vol 25. Academic, Cambridge, pp 1–65
22. Sheth JN, Newman BI, Gross BL (1991) Why we buy what we buy: a theory of consumption values. J Bus Res 22:159–170
23. Shaw D, Grehan E, Shiu E, Hassan L, Thomson J (2005) An exploration of values in ethical consumer decision making. J Consum Behav: Int Res Rev 4(3):185–200
24. Sweeney JC, Soutar GN (2001) Consumer perceived value: the development of a multiple item scale. J Retail 77(2):203–220
25. Mutum DS, Ghazali EM, Wei-Pin W (2021) Parallel mediation effect of consumption values and the moderation effect of innovativeness, in predicting the influence of identity on green purchasing behaviour. J Consumer Behav 20(3):827–844
26. Ojala M (2008) Recycling and ambivalence: quantitative and qualitative analyses of household recycling among young adults. Environ Behaviour 40(6):777–797. https://doi.org/10.1177/0013916507308787
27. Weber Macena M, Carvalho R, Cruz-Lopes LP, Guiné RP (2021) Plastic food packaging: perceptions and attitudes of Portuguese consumers about environmental impact and recycling. Sustainability 13(17):9953
28. Zhou G, Gu Y, Wu Y, Gong Y, Mu X, Han H, Chang T (2020) A systematic review of the deposit-refund system for beverage packaging: operating mode, key parameter and development trend. J Clean Prod 251:119660. https://doi.org/10.1016/j.jclepro.2019.119660
29. https://pantamera.nu/ (2023-04-15)
30. Zhang H, Wen ZG (2014) The consumption and recycling collection system of PET bottles: a case study of Beijing, China. Waste Manag 34(6):987–998
31. Simon B, Amor MB, Földényi R (2016) Life cycle impact assessment of beverage packaging systems: focus on the collection of post-consumer bottles. J Clean Prod 112:238–248
32. Greenwood SC, Walker S, Baird HM, Parsons R, Mehl S, Webb TL et al (2021) Many Happy Returns: Combining insights from the environmental and behavioural sciences to understand what is required to make reusable packaging mainstream. Sustain Prod Consum 27:1688–1702
33. Otto S, Strenger M, Maier-Nöth A, Schmid M (2021) Food packaging and sustainability–consumer perception vs. correlated scientific facts: a review. J Clean Prod 298:126733
34. Dietz T, Fitzgerald A, Shwom R (2005) Environmental values. Annu Rev Environ Resour 30:335–372
35. Gumbert T (2019) Freedom, autonomy, and sustainable behaviours: The politics of designing consumer choice. Power and Politics in Sustainable Consumption Research and Practice. Routledge, Abingdon, pp 107–123
36. Yuan R, Liu MJ, Blut M (2022) What's in it for you? Examining the roles of consumption values and Thaler's acquisition–transaction utility theory in Chinese consumers' green purchase intentions. Eur J Mark 56(4):1065–1107

37. Biswas A, Roy M (2015) Green products: an exploratory study on the consumer behaviour in emerging economies of the East. J Clean Prod 87:463–468
38. Reisch LA, Thogersen J (2015) Research on sustainable consumption: introduction and overview. Handbook of Research on sustainable consumption. Edward Elgar, Glos, pp 1–17
39. Subiza-Pérez M, Santa Marina L, Irizar A, Gallastegi M, Anabitarte A, Urbieta N, Ibarluzea J (2020) Who feels a greater environmental risk? Women, younger adults and pro-environmentally friendly people express higher concerns about a set of environmental exposures. Environ Res 181:108918
40. Zelezny LC, Chua PP, Aldrich C (2000) Elaborating on gender differences in Environmentalism. J Soc Issues 56(3):443–458
41. Latif SA, Omar MS, Bidin YH, Awang Z (2012) Environmental problems and quality of life: situational factor as a predictor of recycling behaviour. Procedia Soc Behav Sci 35:682–688
42. Martin M, Williams ID, Clark M (2006) Social, cultural and structural influences on household waste recycling: a case study. Resour Conserv Recycl 48(4):357–395. https://doi.org/10.1016/j.resconrec.2005.09.005
43. Best H, Mayerl J (2013) Values, beliefs, attitudes: an empirical study on the structure of environmental concern and recycling participation. Soc Sci Q 94(3):691–714
44. Viscusi BWK, Huber J, Bell J (2011) Promoting recycling: private values, social norms, and economic incentives. Am Econ Rev 101(3):65–70
45. Cantillo T, Notaro S, Bonini N, Hadjichristidis C (2023) Assessing Italian household preferences for waste sorting systems: the role of environmental awareness, socioeconomic characteristics, and local contexts. Waste Manag 163:22–33
46. Kim Y, Suh S (2022) The Core Value of sustainable fashion: a Case Study on Market Gredit. Sustainability 14(21):14423
47. McDonald S, Ball R (1998) Public participation in plastics recycling schemes. Resour Conserv Recycl 22(3–4):123–141. https://doi.org/10.1016/S0921-3449(97)00044-X
48. Williams ID, Kelly J (2003) Green waste collection and the public's recycling behaviour in the Borough of Wyre, England. Resour Conserv Recycl 38(2):139–159. https://doi.org/10.1016/S0921-3449(02)00106-4
49. Biel A, Dahlstrand U (2005) Values and habits: a dual-process model. In: Krarup S, Russell CS (eds) Environment, Information and Consumer Behaviour. Edward Elgar, Cheltenham, pp 33–49
50. Rokeach M (1973) The nature of human values. Free Press, Washington, D.C.
51. Schwartz SH (1994) Are there universal aspects in the structure and contents of human values? J Soc Issues 50(4):19–45
52. Knickmeyer D (2020) Social factors influencing household waste separation: a literature review on good practices to improve the recycling performance of urban areas. J Clean Prod 245:118605. https://doi.org/10.1016/j.jclepro.2019.118605
53. Thomas C, Sharp V (2013) Understanding the normalisation of recycling behaviour and its implications for other pro-environmental behaviours: a review of social norms and recycling. Resour Conserv Recycl 79:11–20. https://doi.org/10.1016/j.resconrec.2013.04.010
54. McDonald S, Oates CJ, Alevizou PJ, Young CW, Hwang K (2012) Individual strategies for sustainable consumption. J Mark Manage 28(3–4):445–468
55. Naturvårdsverket (2019) Fakta om avfall [retrieved 2 December 2020]. See https://www.naturvardsverket.se/Sa-mar-miljon/Mark/Avfall/
56. Tojo N (2011) Deposit Refund Systems in Sweden. IIIEE Reports, vol. 2011:05, International Institute for Industrial Environmental Economics. Lund University, Lund
57. SFS (2005:220) Miljöbalken
58. KANTAR Sifo (2019) Beteenden och attityder kring pantning 2019. Returpack
59. Morgan DL (1996) Focus groups as qualitative research, vol 16. Sage Publications, Thousand Oaks
60. Kitsinger J (1994) The methodology of focus groups: the importance of interaction between research participants. Sociol Health Illn 16(1):103–121
61. Van Der Huffman AH, Henning JB, Watrous-Rodriguez K (2014) When do recycling attitudes predict recycling? An investigation of self-reported versus observed behaviour. J Environ Psychol 38:262–270