# Understanding views on sufficient clothing consumption

## Using Q methodology

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Thesis for the fulfilment of the
Master of Science in Environmental Management and Policy
Lund, Sweden, May 2022

# Acknowledgements

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# Abstract

Overconsumption of clothes is a global environmental and social problem, where 80 billion new clothing is produced each year. Efficiency measures have focused on improving resource efficiency on the production side and improving clothing care on the consumer side. However, literature shows that these measures are not enough. Sufficiency shifts the focus to affluent societies consuming less, and understanding sufficiency from the consumer perspective is therefore of utmost importance. This thesis aims to explore consumers' perceptions about sufficiency by answering two research questions. 1) How do consumers understand and perceive sufficiency in their clothing consumption? 2) How can sufficient clothing consumption be encouraged according to consumers? This thesis employs Q methodology to capture different perspectives on sufficient clothing consumption among female millennial Icelandic consumers. Three different social perspectives emerged in this research: A) Quality seekers for sufficiency, B) Vicious cycle consumers, and C) Sufficiency as a state of mind. The findings also demonstrated a significant consensus among the perspectives. The results were analysed with Social Practice Theory, focusing on the meaning and competence elements of the theory. The findings further explored consumers' perceptions regarding responsibility and interventions for each social perspective. Consumers in the two social perspectives responded positively to numerous governmental interventions, while consumers adhering to the last social perspective were not in favour of restrictive governmental interventions into clothing consumption. Evidence of the knowledge-behaviour gap was present within that last perspective. These results give an indication of the perceptions of consumers towards sufficient clothing consumption and sufficiency encouragement, which could be of value both for practitioners and policymakers.

**Keywords:** Sufficiency, consumer perceptions, clothing consumption, social practice theory, Q methodology

# Executive Summary

*Problem definition*

Overconsumption of clothes remains a global problem, where affluent societies consume more than the earth can withstand. However, these affluent societies have become more efficient in their consumption due to decades of industrialisation and globalisation. These efficiency measures are not enough since overconsumption still prevails (Speck & Hasselkuss, 2015). This is evident in the fashion industry, where measures have been taken to reduce the resources used to make clothes, with concepts such as slow or sustainable fashion. However, the fashion industry has grown rapidly over the recent decades, with fast fashion leading the way (Niinimäki et al., 2020). Clothes are being mass-produced as consumers need to keep up with the trends. Therefore, the focus needs to be shifted to reducing the absolute number of clothes produced globally, more precisely, to sufficiency measures.

Research demonstrates that sufficiency scenarios can reduce the carbon footprint of consumption (Vita et al., 2019). However, how consumers think about and understand such consumption remains underexplored. This is demonstrated, among others, by the recent literature review on sufficiency by Jungell-Michelsson and Heikkurinen (2022). The literature review identified a clear gap about the meaning of sufficiency and how differently it is understood in various contexts. This gap is also supported by an analysis of recent studies on sufficient consumption in mobility, food and waste (Kropfeld, 2019).. The gap is even larger in the clothing domain (Kropfeld, 2019). This suggests that research is needed on consumer practice and perceptions about sufficient clothing consumption by consumers. This knowledge is of great interest to policymakers and practitioners who seek to develop effective approaches to enable and facilitate sufficient consumption.

*Aim and research questions*

This thesis explores how consumers understand and perceive sufficiency in clothing consumption. It seeks to contribute to knowledge about consumers' attitudes towards such novel concepts as sufficiency. With this aim in mind, the following research questions have been defined:

RQ1: How do consumers understand and perceive sufficiency in their clothing consumption?

RQ 2: What are consumers' perceptions of sufficiency encouragement?

This study focused on the perceptions of female millennial Icelandic consumers.

*Research design*

This study employed a mixed-method approach. First, an initial literature review was conducted to identify gaps in the literature to guide the research questions. Then, the Q methodology was chosen to collect data from consumers. Statements were gathered from diverse sources, mainly interviews with four consumers, literature, blogs, websites, and newspapers. In the end, 50 statements were chosen, and 18 consumers participated and provided their unique Q-sort (perspective). A Principal Component Analysis was employed, resulting in clusters of participants' common subjective viewpoints.

## Main findings

The results show that three social perspectives emerged among the participants of this study. Along with these perspectives, a high level of consensus was identified. The perspectives and the points of consensus were analysed with the help of social practice theory, focusing on the elements of meaning and competence. SPT allowed for a closer look at the practice of sufficient consumption highlighting the difference of practices and emotions consumers associated with what sufficiency entails (meaning) and what will enable them to consume more sufficiently (competence).

The first social perspective was named *Quality seekers for sufficiency*. What distinguishes this perspective from the others is how participants representing this perspective understand sufficiency as buying quality and long-lasting clothes. This is understood as a necessity to practice sufficiency since high-quality garments are considered to last longer than fast fashion items. These participants further thought of sufficiency as not owning too many clothes, relating their thinking to an abstract view of a certain quantity. In addition, the representatives of this perspective were the only ones that felt that consumers were, to some extent, responsible for high consumption levels of clothes.

Another social perspective, called the *Vicious cycle consumers*, is distinguished by a narrow view of sufficiency activities since repairing and making clothes yourself should not be described as such an activity. However, they do feel sufficiency is about buying quality clothes but think that they are too expensive, and therefore they feel like they are caught in a vicious cycle that they cannot get out of. Along with the high cost of quality clothing, the low price of fast fashion and temptation inside a store is seen as significant barriers. In addition, the perspective of these participants showed evidence of the knowledge-behaviour gap since the results show that they are aware of the impacts of their consumption habits but do not actively change their behaviour.

The final identified social perspective is that of *Sufficiency as a state of mind*. Representatives of this viewpoint believe that sufficiency should extend beyond clothing and include other aspects of life such as family and friends. This indicates a shift in consumer mind-set, with consumers viewing clothes as durables rather than consumables.

There was consensus among the factors on numerous statements. Therefore, almost everyone who took part in the study believes that sufficient clothing consumption is centred around using the clothes you have and sharing clothes. Sufficiency is also thought about being about a certain quantity of clothes. The governmental intervention that all social perspectives believe is needed to enhance sufficient clothing consumption is in the form of consumer education. Furthermore, the participants do not think giving clothes to charity will improve sufficient clothing consumption.

Regarding perceptions on sufficiency encouragements, there was a high consensus concerning encouragements from businesses. The participants felt that businesses should encourage sufficiency, and promotions and marketing materials relating to that would not make them trust companies any less. In regard to various interventions from the governmental level, the consensus was not as high. Participants that represented *Quality seekers for sufficiency* and *Sufficiency as a state of mind* favoured more radical interventions; the latter perspective had the least resistance to the most radical statements. However, participants identifying with *Vicious cycle consumers* only reacted positively to statements regarding educating consumers and supporting local designers.

### Conclusions and recommendations

The main conclusions of this thesis are centred around the three social perspectives while also highlighting the consensus as points of action which would be acceptable to consumers.

RQ1: How do consumers understand and perceive sufficiency in their clothing consumption?

Consumers perceive sufficiency in their clothing consumption differently. Their perceptions can be roughly clustered to three social perspectives. These perspectives were coined as *Quality seekers for sufficiency*, *Vicious cycle consumers*, and *Sufficiency as a state of mind*. There are apparent differences between these perspectives, mainly focusing on quality and durable clothes, the inability to overcome barriers, and seeing clothes as durables rather than consumables. However, along with the differences between these perspectives, a number of points of consensus were identified.

RQ 2: What are consumers' perceptions of sufficiency encouragement?

The study highlighted consumers' different perceptions concerning governmental interventions to enhance sufficiency. The perceptions ranged from participants favouring softer measures and giving consumers the freedom of choice to participants feeling that consumers need assistance to reduce their consumption levels and therefore favouring more radical governmental interventions. As for encouragement from businesses, the consensus was that it was part of their responsibility to encourage sufficiency.

The results initially map emerging perceptions on sufficient clothing consumption, benefitting policymakers and clothing companies. For policymakers, the results identify possible consumer reactions to various governmental interventions and provide indications of social acceptability for a couple of interventions, which could be further enhanced. For clothing companies, the results further confirm that engaging in sufficiency activities and encouraging consumers to practice sufficiency will not make consumers lose trust in the company.

Finally, this research contributes to the emerging field of sufficiency literature and outlines directions for future research. For example, future research could employ interviews with individuals who practice sufficiency in their clothing consumption to get a closer look at the practice of consuming sufficiently. Research could also dive deeper into policies or governmental interventions to enhance sufficient clothing consumption, giving a more accurate picture of the available interventions and what might be realistic in a specific geographical context. Finally, it might be interesting to explore what role consumers' actual closets play in enhancing sufficient clothing consumption, focusing on the material side of SPT.

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# Abbreviations

SPT     Social Practice Theory

Q       Q methodology

PCA     Principal Component Analysis

PIs     Purchase Intentions

KADE    KenQ Analysis Desktop Edition

# 1 Introduction

"Rarely in human history have so many things gone so badly wrong in so short a time. The global social and economic systems must make a U-turn if they are not to destroy their own physical basis"(Spangenberg, 2018, p. 5). This is how the report on sufficiency by Friends of the Earth Europe starts. Activities of industrialised societies are pushing the earth's ecosystems into a state of crisis. These societies and economies have been allowed to prosper while the ecosystem has paid the price, with at least four of the nine planetary boundaries already crossed (Steffen et al., 2015) and predictions that global temperatures could rise beyond 2°C above pre-industrial levels this century if radical changes are not implemented (IPCC, 2021). High emissions and resource-intensive lifestyles are driven by individual overconsumption. Overconsumption is a global problem which leads to the depletion of valuable resources, which jeopardises "the ability of future generations to meet their own needs", as suggested in the definition of sustainable development (WCED, 1987, p. 43).

Even though the problem of overconsumption is global, it is particularly acute in the Global North (Wiedmann et al., 2020), where many nations' general well-being would not suffer if consumption levels decreased (O'Neill et al., 2018). Citizens in the Global North are consuming too much, to the point that the earth does not keep up with regeneration, while waste sinks are filled more rapidly than the earth can assimilate (Princen, 1999). This is more true in today's societies than ever. Princen (1999) argues that "consumption or, more precisely, overconsumption, ranks with population and technology as a major driver of global environmental change" (Princen, 1999, p. 348). However, advanced economies have become more efficient in their consumption use due to decades of industrialisation and globalisation. Yet, the efficiency gains in the material used are simply not enough to compensate for the increased consumption, resulting in these same advanced economies still mounting exceptionally high environmental pressures (Speck & Hasselkuss, 2015), and thus need to change to fulfil the Paris Agreement (Alfredsson et al., 2018).

The current consumption levels are not sustainable, and it has been argued by many scholars that "consumption as usual" needs to change (Bjørn et al., 2018; Kropfeld, 2019). Alexander (2012) highlights the importance of changing consumption behaviour when talking about consumer capitalism and the system that will not last forever because of financial, ecological and energy challenges: "Before long, this will render consumer capitalism an obsolete system with neither amends nor an end, a situation that is materialising before our very eyes" (Alexander, 2012, p. 1). Furthermore, this change in consumption patterns and ideas about sufficiency resonates with UN SDG 12 about responsible consumption and production (United Nations, 2015, p. 12)

While overconsumption prevails in various consumption domains, this thesis focuses on clothing. Appropriate clothing is considered one of the basic human needs presented by Maslow (1943). Here, the necessity for clothing is not put into question. Instead, the issue of its overconsumption is addressed. Clothing is one of the material objects that is being overconsumed at present, where the amount of new pieces of clothing sold each year is close to 80 billion (Claudio, 2007). Global per capita textile production grew from 5.9 kg to 13 kg per year between 1975 and 2018 (Peters et al., 2019).

Although the environmental impacts of the fashion industry are widely publicised, the sector has grown rapidly in recent decades. For the most part; this rapid growth is a consequence of 'fast fashion' (Niinimäki et al., 2020). The term 'fast fashion' is used to describe clothing that is produced fast and cheap, both in terms of production costs and costs for the consumers (Niinimäki et al., 2020), sometimes referred to as the "clothing equivalent of fast food" (Claudio,

2007, p. A449). 'Fast fashion' is based on clothing being produced and sold quickly while also developing new trends and clothing that encourages consumers to come back for more, ultimately inducing quick disposal (Fletcher, 2008). Fast fashion has been argued to have allowed all classes of consumers the option to purchase the newest styles (Bick et al., 2018). However, the environmental destruction caused by the fast fashion industry is not accounted for and the true cost of clothes is not included in the price tags (Burton, 2018).

This fast production of clothes has major environmental implications, being very resource and water-intensive and in total accountable for 8-10% of global carbon emissions (European Environment Agency, 2019; UN Environment, 2019). Furthermore, the fashion industry is responsible for more than 92 million tonnes of textile waste every year, most of which is disposed of in landfills or burned (Niinimäki et al., 2020), or ends up in second-hand markets in the Global South (Bick et al., 2018). In addition to environmental problems, clothes that are designed to be sold quickly and to low prices put immense cost pressure on the production, often resulting in socially hazardous conditions and poor labour standards (Ellen MacArthur Foundation, 2017). Therefore, addressing clothing consumption is closely related to justice, since the environmental, health, and social impacts of the high production and disposal levels of fast fashion are shifted from high-income countries to low-income countries (Bick et al., 2018). How consumers buy and consume fashion is therefore of great importance. However, how more sufficient clothing consumption can be achieved is not well established.

One plausible solution to the problem of overconsumption and its environmental consequences is for individuals to simply consume less (Alcott, 2008). This concept of sufficiency was developed when it became clear that efficiency measures were not enough to decrease environmental pressures since they mainly focused on more sustainable resource use for the production or more efficient use phase of products. However, it is acknowledged that efficiency strategies are important, but they are not enough (Princen, 2005). Furthermore, it has been argued that emphasising efficiency may result in rebound effects since the gains from efficiency strategies often lead to reduced production costs, leading to lower prices and higher consumption levels (Alcott, 2008, 2018; Figge et al., 2014). The sufficiency approach is founded on the premise that fewer resources are utilised due to reduced consumption in absolute terms without negatively influencing people's well-being (Frick et al., 2021; Gossen & Heinrich, 2021). In other words, it is 'living well on less' (Figge et al., 2014). In terms of the fashion industry, this implies reducing the amount of clothing produced and therefore purchased (Frick et al., 2021). The sufficiency approach challenges the idea of the number of clothes in the system and "suggests that reducing the volumes in production, consumption and disposal can also support a reduction in negative environmental and social impacts" (Freudenreich & Schaltegger, 2020, p. 3).

Heikkurinen et al. (2019) state that big clothing brands are already working with extended eco-efficiency strategies. This is positive; however, looking at the situation from a broader perspective (macro-level), this is not enough. These strategies must be accompanied by sufficiency strategies to reduce the sheer amount of clothes produced globally. To do so, understanding sufficiency from the consumer perspective is imperative.

## 1.1 Problem definition

It has been argued that policies need to enhance sufficient consumption and companies need to take responsibility for the consumption level they are encouraging (Schäpke & Rauschmayer, 2014). The author recognises that the focus on policies to encourage sufficient consumption is critical. However, a deeper understanding of sufficiency from the consumer perspective is needed for informed decision-making (Barry & Proops, 1999; Jungell-Michelsson & Heikkurinen, 2022). Understanding sufficiency from the consumer perspective would provide

further knowledge to policymakers and companies about how consumers understand the concept and what they feel they would need to consume more sufficiently. Policies addressing sufficiency and consumption behaviour associated with it have not been very popular, primarily because of the fear that they put restrictions on people's quality of life (Schäpke & Rauschmayer, 2014; Spengler, 2018). According to Barry and Proops (1999), environmental policymakers must understand discourses about specific issues to effectively implement environmental policies that will be socially acceptable.

The importance of more sufficient consumption is evident, as it has been revealed that sufficiency scenarios can reduce the carbon footprint of the consumption (Vita et al., 2019). However, how consumers think about and understand such consumption is unclear, which is supported by the literature review of the field of sufficiency by Jungell-Michelsson and Heikkurinen (2022). They indicate a clear research gap in terms of what sufficiency means and how it is understood in different contexts. This research gap is further highlighted by an analysis of recent studies that showed that there are numerous studies on sufficient consumption concerning mobility, food and waste, but fewer in the field of clothing (Kropfeld, 2019). This suggests that research is needed on consumer practice and perceptions of sufficient clothing consumption in order for policymakers and practitioners to develop effective approaches to facilitate and enable sufficient consumption.

## 1.2  Aim and Research Questions

This thesis aims to explore how consumers understand and perceive sufficiency when it comes to clothing consumption. It seeks to contribute to knowledge about consumers' attitudes towards such novel concepts as sufficiency. With this aim in mind, the following research questions have been defined:

RQ1: How do consumers understand and perceive sufficiency in their clothing consumption?

RQ2: How can sufficient clothing consumption be encouraged according to consumers?

## 1.3  Scope and delimitations

The geographical scope of this thesis is Iceland. Therefore, the perceptions of Icelandic consumers on sufficiency will be explored. Iceland is an interesting case because the country's per capita consumption levels are among the highest in the world (Statistics Iceland, 2018) in addition to the fact that everything must be imported to the country via flight or sea, which leads to high carbon footprints. Iceland is very often considered green because of its geothermal energy, yet, there are challenges in society regarding excessive consumption. Furthermore, being Icelandic, the author of this thesis has adequate access to Icelandic consumers and will be able to collect data in the native language of the research subjects.

The target consumer group are female millennial consumers in Iceland. Millennials are an interesting consumer group since they are argued to be environmentally conscious, while in the meantime, they have high consumption levels (Smith & Brower, 2012; Sorensen & Jorgensen, 2019). In order to capture different and diverse views of consumers, all millennial consumers will be targeted. This thesis aims to depict a wide range of different views on clothing sufficiency; however, it cannot guarantee that all opinions are represented.

In summary, this thesis will focus on clothing consumption, which is currently being overconsumed in high-income countries. The reason is that individuals, in principle, only require a few pieces of clothing to meet their basic human needs, and modifying consumption levels of clothing would, most likely, have little effect on citizens' well-being (Alexander, 2012). As

supported by Joanes (2019), clothing consumption is a discretionary consumer good which is especially relevant when investigating sufficiency.

Methodological limitations and general reflections on the research will be in presented in section 5.2 of the Discussion.

## 1.4   Ethical considerations

The most important ethical aspect of the thesis lies in the data gathered from consumers through the interviews and Q sorting exercises. This data needs to be carefully stored and treated. The interviewees were informed about the nature of the study and details about anonymity prior to them taking part. Participants in the Q sorting part of the study were further given information about the purpose of the study, and all information was disclosed before they started the sorting of statements. All participation was voluntary, and participants had the opportunity to stop participating.

All data were treated anonymously, and confidentiality was ensured where only non-identifying information was used. Participation in interviews was voluntary, and no pressure was enforced in regards to answers to specific questions. Questions were designed in a courteous manner, and the level of clothing consumption of everyone was treated with respect.

All collected data, such as interview recordings and notes, are stored in a password-protected external hard drive. All data collected through Q-sorTouch (Q sorting software) will be deleted as soon as the author's account will be terminated (28. June 2022). The data loaded into the KEDO software was anonymous, but it will be deleted when the software will be removed from the author's computer.

This research was conducted independently and without any external funding. Mistra sustainable consumption program has paid for 3 months subscription to Q-sorTouch software.

## 1.5   Audience

The results of this study are intended to benefit the scientific community by focusing on consumers' views on clothing sufficient consumption since the concept of sufficiency is still a relatively novel research topic in the clothing domain. Additionally, this thesis may be beneficial to policymakers since action towards sufficiency, both for consumers and companies, needs assistance from the public sphere (Alcott, 2018). Furthermore, the results might be interesting for businesses as they shine a light on consumers' views on sufficiency related marketing.

## 1.6   Disposition

The structure of this thesis is as follows:

*Chapter 1: Introduction* presents relevant background information on sufficiency and clothing consumption, defines the specific research problem and poses the research questions. It is followed by outlining the thesis's scope, limitations, ethical considerations, and audience.

*Chapter 2: Literature* review provides a review of the state of the literature on the concept of sufficiency, how it has been defined and discussed and discusses the responsibility of different actors related to clothing consumption. The area of sufficient clothing consumption and its various activities is then explored, and relevant barriers present in the literature are highlighted. Finally, the review brings the reader to a theory that guides the data collection and analysis, i.e., social practice theory.

*Chapter 3: Research design and methodological choices* presents how Q methodology was chosen for this thesis and describes how data was collected through that method. The analysis is further presented, and the method's limitations are addressed.

*Chapter 4: Findings and analysis* starts with presenting background information about the study's participants and their clothing consumption habits. The chapter then provides an overview of the three social perspectives on sufficient clothing consumption and connection to the elements of social practice theory and a similar analysis of the consensus identified.

*Chapter 5: Discussion* connects the main findings to the literature review and provides grounds for discussion. It further provides a critical reflection on the results and the choices made during the thesis process and touches upon legitimacy and generalisability.

*Chapter 6: Conclusion* summarises the main findings, presented as answers to the RQs. Practical implications of the results are then presented, and recommendations for future research are made.

# 2  Literature review

The literature review is divided into three parts. The first part focuses on how sufficiency has been discussed and defined and discusses responsibility and the different actors involved. The second part brings the focus on clothing consumption and sufficiency actions. The last part presents Social Practice theory as a theoretical framework intended to guide the analysis.

## 2.1  Sufficiency

As mentioned in the introduction, sufficiency is considered necessary because continuing business-as-usual and hoping that 'green' technological innovation will lead to a relief in environmental pressures will not bring about the drastic changes in consumption levels needed (Alcott, 2008; Alfredsson et al., 2018; Jackson, 2016; Princen, 2005). To position the focus of this thesis further and to give the literature review a point of departure, sufficiency is understood in relation to the waste hierarchy, as presented by Price and Joseph (2000), and the sufficiency based waste hierarchy by Bocken and Short (2016), where the top of the hierarchy is to avoid consumption. The aim of sufficiency is, therefore, to reduce the overall waste. Furthermore, this thesis is based on the idea that sufficiency is about reducing consumption in affluent societies, where overconsumption occurs.

### 2.1.1  Defining Sufficiency

Diving deeper into the concept of sufficiency and reflecting on articles that have studied the concept, it has become clear that no clear definition of the concept exists. This is pointed out by numerous researchers (Gorge et al., 2015; Gossen et al., 2019; Gossen & Kropfeld, 2022; Princen, 2005; Spangenberg & Lorek, 2019). The concept refers to consumers in affluent societies rethinking their needs and reducing their consumption (Figge et al., 2014; Persson & Klintman, 2021; Princen, 2005; Sandberg, 2021). The consensus throughout the literature is that the sufficiency concept emerged because it became apparent that efficiency, which has through the years been the focal point, was not enough (Alcott, 2008; Alfredsson et al., 2018; Bjørn et al., 2018; Lorek & Fuchs, 2013; Persson & Klintman, 2021; Spangenberg & Lorek, 2019). Efficiency strategies aim at increasing the efficiency of production through resource productivity and technological improvements (Lorek & Fuchs, 2013; Lorek & Spangenberg, 2014). However, it has been argued that efficiency strategies are accompanied by rebound effects, where gains from efficiency strategies in production ultimately lead to lower prices. Consumers, therefore, consume more because of the savings from the efficiency strategies. This might result in efficiency strategies being useless, or worse, counterproductive, where gains from efficiency strategies are trumped by increased overall consumption (Alcott, 2008).

Persson and Klintman (2021) highlight the importance of complementing efficiency with sufficiency saying: "The efficiency approach of moving towards sustainable consumption through mainly technological solutions, which dominates environmental policymaking, has overall failed to reduce the adverse environmental impacts caused by unsustainable consumption patterns" (Persson & Klintman, 2021, p. 1). Lorek and Fuchs (2013) further argue that by focusing solely on efficiency, there is a risk of fostering perpetual overconsumption; however, by combining efficiency with sufficiency, real progress can be made. They connect efficiency and sufficiency to ideas about weak and strong sustainability. Weak sustainable consumption is an approach that assumes that efficiency gains from technological solutions will achieve sustainable consumption. However, strong sustainable consumption is defined as an approach that assumes that changes in overall consumption levels are necessary (Lorek & Fuchs, 2013).

As noted above, sufficiency came about as an answer to the rebound effects instigated by efficiency measures (Alcott, 2008). However, sufficiency measures can also result in rebound

effects (Alcott, 2008; Figge et al., 2014), for example, when one individual's consumption savings are consumed by another individual (Alcott, 2008). This is explained by Alcott (2008, p. 775), who argues "a drop in demand, it initially lowers prices, and this in turn raises others' demand, so that in the end some of what was 'saved' through non-consumption is consumed after all — merely by others". Activities that contribute to sufficiency therefore, require resource savings not to be directed towards increased consumption somewhere else (Lorek, 2018).

The difference between efficiency and sufficiency is vital, although, in the sufficiency literature, activities related to these two concepts tend to overlap. Before looking at this overlap, the difference between these two concepts needs to be elaborated on. According to Heikkurinen et al. (2019), efficiency is related to activities that concern quality, while sufficiency activities focus on quantity. Further, they present two additional concepts, *extended eco-efficiency strategies* and *extended eco-sufficiency strategies*. Extended eco-efficiency refers to encouraging consumers to take better care of their bought products (e.g. sensible washing of clothes), while extended eco-sufficiency relates to encouraging consumers to reduce their overall consumption. They argue that a truly sustainable strategy can not only feature the efficiency part since it only focuses on the quality side of consumption. Therefore they conclude that an "effective business strategy to sustainable change increases both the quality of production (eco-efficiency) and decreases the amount of production (eco-sufficiency), as well as influence consumers to consume better (extended eco-efficiency) and less (extended eco-sufficiency)" (Heikkurinen et al., 2019, p. 662). Figure 2-1 depicts these concepts in relation to the status quo. This thesis focuses on both eco-sufficiency and extended eco-sufficiency, hereafter referred to as simply 'sufficiency'.
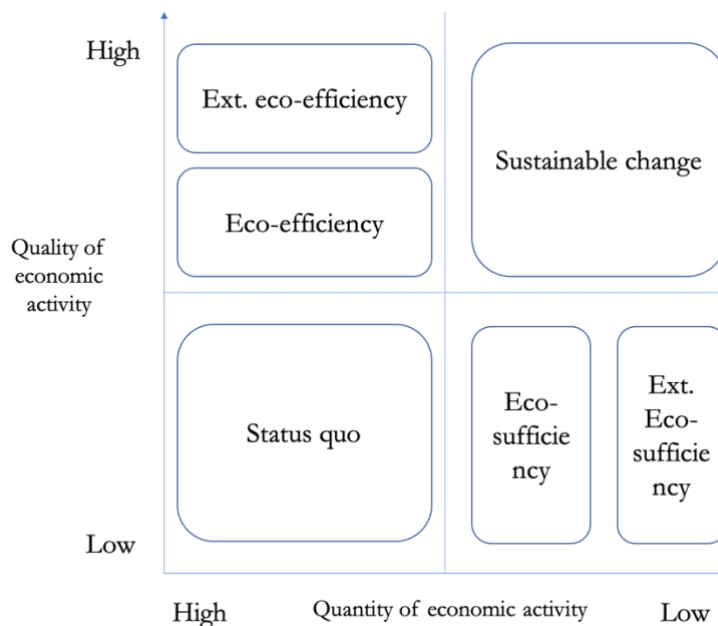


*Figure 2-1: Business strategies*

*Source: Author's elaboration. Adapted from Heikkurinen et al. (2019)*

A fully sustainable path needs to combine three strategies: efficiency, sufficiency and consistency (Frick et al., 2021; Göpel, 2016; Gossen & Kropfeld, 2022). The last one, which has not been mentioned here, relates to how products should be environmentally friendly (e.g. reusable and biodegradable) (Frick et al., 2021).

## 2.1.2 Categorising Sufficiency

In the literature, sufficiency has been described in numerous ways, here categorised into three dimensions: enoughness, social justice and reducing total material consumption.

### *Enoughness*

The discussion around enoughness in environmental science has long revolved around a maximum level. Human consumption should be kept below a specific threshold, and anything above that threshold is considered "too much" (Princen, 2005; Steffen et al., 2015; Young & Tilley, 2006). Spengler (2016) points out that sufficiency has also been discussed in another field, political philosophy. There, the focus has been on the minimum level, and Spengler (2016) argues that these levels should be combined for sustainable development. Gorge et al. (2015) suggest similarly that sufficiency should not be about sacrifice but rather about balancing excess and scarcity. They further present four sufficiency levels as enoughness, based on consumers' interpretation and their journey towards sufficiency (see Table 2-1).

*Table 2-1: Meaning of each term of the sufficiency semiotic square*

| Everything | Representation of abundance |
|---|---|
| Nothing | Representation of scarcity |
| Not everything | Restrained consumption without making too many sacrifices |
| Not nothing | The achievement of the sufficiency process "relates more to a global downward reassessment of consumption habits" |

*Source: Author's elaboration. Adapted from Gorge et al. (2015)*

This question of enough has been asked by numerous researchers (Kropfeld & Reichel, 2021; Spengler, 2016). A recent literature review on sufficiency found that "the core of the concept is the idea that reaching a state of 'enough' is desirable both from the perspective of ecosystems, as well as from the point of view of social and economic systems" (Jungell-Michelsson & Heikkurinen, 2022, p. 3).

This thesis focuses on how consumers perceive sufficiency and therefore looks at what having 'enough' means to consumers. Frankfurt (1987) discussed 'enoughness' as this abstract concept on an individual level; When people say they have had enough, they might say that something has reached a specific limit and going further is not desirable. However, it might also mean that certain criteria have been met, and having more than enough is not necessarily a bad thing. Therefore, this enoughness of sufficiency seems to add to the abstractness and subjectivity of the concept.

Further, on the consumer level, sufficiency has been discussed as "having enough to meet one's needs – while thinking not only about material needs" (Schneidewind & Zahrnt, 2014, p. 13).

### *Reducing total material consumption*

Along with discussing sufficiency as 'Enoughness', Princen (2005) further discusses sufficiency as changing needs and ultimately reducing material consumption. He emphasises that sufficiency should not be to consume too little, but not too much either. Similarly, Persson and Klintman (2021) describe this dimension as "advocating for a reduction in overall levels of consumption of materials and energy among relatively affluent social groups" (Persson &

Klintman, 2021, p. 4). Here, affluent groups are mentioned, bringing the discussion about justice between groups living affluently and those who suffer scarcity.

Lorek and Fuchs (2013) discuss sufficiency as strong sustainable consumption when they argue that to move forward toward sustainable consumption, affluent societies need to halt their consumption habits and reduce their level of consumption overall.

### *Social justice*

Göpel (2016) discusses sufficiency as a straightforward concept and relates her phrasing to the core of sustainable development and intra- and intergenerational justice:

> It means embracing the idea that there can and should be enough production and consumption. Phrased this way, it sounds like the baseline of sustainable development. Enough for everyone forever. Enough and not less, however, also means enough and not more. At least on one finite planet. (Göpel, 2016, p. 106)

In line with this justice aspect, Alexander (2012) discussed sufficiency on the macro-level as 'enough, for everyone, forever'. Here he mentions the enoughness, as noted in a previous section, while directing his words at intra- and intergenerational justice. On the macro-level, he states that "economies should seek to universalise a material standard of living that is sufficient for a good life but which is ecologically sustainable into the deep future" (Alexander, 2012, p. 8). Callmer (2019) points out that to help keep the focus on affluent societies, sufficiency should be defined from the top-down, meaning from a position of having "more than enough". Sufficiency should therefore be about 'degrowing' the rich and distributing resources equally (Callmer, 2019).

## 2.1.3 Shouldering Responsibility

As Callmer (2019) discusses, bringing about sufficient consumption entails societal change, which involves various actors, such as governments, businesses and individuals. She poses the question 'Who needs to change?' meaning, who is responsible for this change in the consumption regime.

### *Businesses*

Research suggests that what consumers struggle with the most regarding making more environmentally friendly choices is buying less (Isenhour, 2010), which is the core of sufficiency. This questions how and who should encourage consumers to act more sufficiently? Recent studies show that businesses can impact consumer perception and purchase intentions (Armstrong Soule & Reich, 2015; Dahlman & Merkler, 2020; Gossen et al., 2019; Gossen & Heinrich, 2021; Gossen & Kropfeld, 2022; S. Kim et al., 2018; Reich & Soule, 2016). What is apparent in the research is that a big focus is on marketing strategies and how companies actively communicate about sufficiency. Most notably in the outdoor fashion industry with Patagonia paving the way with their marketing campaign titled 'Don't buy this jacket', which was launched on Black Friday in 2011 (Hwang et al., 2016; S. Kim et al., 2018; Reich & Soule, 2016). Hwang et al. (2016) studied that particular campaign which showed that similar advertisements impacted consumers' attitudes and purchase intentions (PIs). The research shows that participants who saw the sufficiency marketing had lower PIs to buy the jacket than those exposed to traditional marketing material (Hwang et al., 2016). In addition, Ramirez et al. (2017) discovered that consumers reacted highly positively to pro-environmental demarketing, which is comparable to sufficiency marketing. Consumers believed that it boosted the company's trustworthiness and indicated that it was more environmentally concerned (Ramirez et al., 2017). However, as Gossen et al. (2019) argue, the main barrier for companies to encourage sufficiency directly is

still centred around scepticism that consumers would perceive sufficiency encouragements as unusual or untrustworthy.

Businesses can furthermore encourage sufficiency, without implicitly mentioning it, through nudging (Heikkurinen et al., 2019), where, for example, repair or sharing activities are made more convenient than buying something new (Schäpke & Rauschmayer, 2014).

### Government

Businesses are not the only actors that can play a part in encouraging consumers in their clothing sufficiency activities. Governments can play a vital role as well. Governments can encourage voluntary or involuntary sufficiency. In this regard, informational campaigns or nudging (Schäpke & Rauschmayer, 2014) would encourage voluntary sufficiency since consumers would not be forced to reduce their consumption. Implementing caps or taxation schemes (Mastini & Rijnhout, 2018) could be considered interventions aimed at encouraging involuntary sufficiency because it limits the choices that individuals have since they send price signals to consumers. Spangenberg and Lorek (2019) discuss the need for a legal cap on the amount of resources used in order to keep resource consumption in line with the planetary boundaries and define sufficiency based on this premise. In line with restrictions on resource use, a social protection floor is furthermore required to ensure that everyone can survive and prosper in their respective society (Spangenberg & Lorek, 2019), meaning not reducing consumption that much that it endangers lives.

However, governmental restrictions that lead to involuntary sufficiency are not popular and would face many barriers (Schäpke & Rauschmayer, 2014; Spengler, 2018), and some recommend against their use (Heindl & Kanschik, 2016). However, as has been pointed out, we have passed a critical point as a society, and radical changes are needed that dramatically change the 'status quo' (Lorek & Fuchs, 2019; Spangenberg, 2018). Furthermore, soft measures like informational campaigns might not prove fruitful enough since it has been proven that even though consumers have information about the impact of their consumption, they do not necessarily change their consumption habits based on this information (Heiskanen & Laakso, 2019). Critics of policies regarding sufficiency and consumer lifestyles point out that current policy instruments are not doing enough and are too focused on sustaining the economy, resulting in only achieving 'sustainable consumer procurement' (Lorek, 2018). On the other hand, too much interference to sufficiency has also been criticized, as discussed in more detail in the next section.

### Voluntary or obligatory sufficiency

This brief discussion about the two actors that can enhance sufficient consumption raises the question of whether sufficiency should be voluntary or involuntary. Gorge et al. (2015) argue that sufficiency is dual in nature, meaning that it can both be voluntary and obligatory. Most people engage in sufficiency of their own free will, but others are forced to by constraints (e.g. money) (Gorge et al., 2015). They, therefore, do not consider obligatory sufficiency as something that constrains consumers like regulations or caps, as has been considered by others (Alcott, 2018; Spangenberg & Lorek, 2019) and was discussed in the previous section.

Sufficiency has been discussed as a voluntary lifestyle that should not be enforced (Heindl & Kanschik, 2016). However, as Heindl and Kanschik (2016) point out, this should not entail individuals defining the concept however they like and suits them best. According to them, eco-sufficiency, therefore, implies that no consumption level should be enforced on individuals. Still, it implies a non-arbitrary understanding of the consumption levels needed to achieve some ecological objective (Heindl & Kanschik, 2016). However, this discussion of sufficiency is centred around eco-sufficiency, an essential aspect of the ecological objective mentioned earlier.

On the other hand, it has been pointed out that the discourse and how sufficiency is discussed in relation to policies or economic activity is overshadowed by economic thinking, where sufficiency strategies are thought to be connected to economic depression, moving back into caves or impeding the freedom or choices of consumers (Göpel, 2016). Lorek (2018) argues that viewing sufficiency as a voluntary personal sacrifice is a misinterpretation of the concept. The focus should be on the required structural changes that enable individuals to lead a sufficient lifestyle (Lorek, 2018).

Therefore, it is clear that scholars debate the idea of voluntary or involuntary sufficiency. Furthermore, there is an ongoing heated debate about who, besides individuals, should be taking responsibility for sufficient consumption (Spengler, 2016).

### *Individual responsibility*

As sufficiency is about reducing consumption and waste, the consumer's responsibility also needs to be addressed. At the micro-level sufficient consumption relates to consuming less, choosing better (choosing less resource-intensive goods), and being satisfied with an appropriate amount of essential material products (Freudenreich & Schaltegger, 2020; Lorek, 2018).

Callmer (2019) discusses individual responsibility in two ways. The first is about how individuals can step up and show responsibility by pushing for political change through citizen action (Callmer, 2019), which might be interpreted as consumers demanding that political actors take responsibility and implement policies addressing the structural level. The latter one, she calls the 'silent' side of responsibility, where consumers take a step back and take responsibility for the environmental space they have been occupying and actively reduce it. Reducing space can consequentially work as a signal to other consumers, businesses and political actors since it implies a reduced interest in unsustainable practices (Callmer, 2019). This 'silent' responsibility relates to what Heindl and Kanschik (2016) discuss when addressing sufficient lifestyles and argue that it implies that individuals are taking ecological responsibility for their consumption habits. However, letting consumers shoulder the burden of change has been highly criticised in literature (Lorek & Spangenberg, 2019; Spengler, 2016), as it is believed that individual lifestyles cannot be addressed in isolation without also addressing the system around them (e.g. social and economic structures) (Spengler, 2016).

Having discussed the concept of sufficiency and the responsibility it entails, the focus shall now be turned to clothing consumption and measures to shift consumption towards sufficiency.

## 2.2  Clothing Consumption and Sufficiency

Alexander's (2012) description of a society where everyone consumes clothes sufficiently could be described as utopianism. Where consumers would stop purchasing new clothes, and the clothes that are already in the world would be enough for everyone. New clothing would have to be produced, but instead of the production being focused on maximum profits, the focus would be on sustainable practices (Alexander, 2012). However, this is unlikely, and this section will take a more pragmatic approach to clothing consumption.

Clothing consumption comprises three consumption phases: purchase phase, use phase and discard phase (Gwozdz et al., 2017). One crucial aspect of sufficiency lies in consumers changing their attention to meeting their needs rather than their wants when it comes to clothing consumption. (Freudenreich & Schaltegger, 2020). This mentality shift, however, is challenging to achieve. Researchers have proposed numerous activities to support this transformation and persuade consumers to consume more sufficiently (Freudenreich & Schaltegger, 2020; Frick et al., 2021; Joyner Armstrong et al., 2016; Sandberg, 2021). Sandberg (2021) presents a typology of four consumption changes that sufficiency may entail: absolute reductions, modal shifts,

product longevity and sharing practices (see Table 2-2). She suggests that product longevity and sharing practices overlap since extending the use phase can entail sharing practice. Still, according to her, the difference between the two is that product longevity is when individuals extend their usage of a product while sharing practices mean extending the use of the product to other individuals (e.g. re-selling or swapping).

*Table 2-2: A typology of four types of sufficiency clothing consumption changes*

| Type of consumption change | Definition | Car example presented by Sandberg (2021) | Clothing example by author |
|---|---|---|---|
| Absolute reductions | Reducing the amount of consumption | Travelling shorter distances | Buying fewer articles of clothing |
| Modal shifts | Shifting from one consumption mode to one that is less resource-intensive | Shifting from private car use to public transportation | Shifting from fast fashion brands to sustainable fashion brands |
| Product longevity | Extending product lifespans | Prolonging use of existing vehicles | Prolonging the use of existing clothing (by for example, repair) |
| Sharing practices | Sharing product among individuals | Car sharing among individuals | Swapping or renting clothes |

*Source: Author's elaboration. Adapted from Sandberg (2021), last column added by the author*

In line with product longevity and sharing practices, Freudenreich and Schaltegger (2020) emphasise similar practices when presenting a framework for sufficiency-oriented business offerings to encourage consumption reduction. All of which centre around the use phase; extended use, reuse and partial reuse. All are practices that encourage consumers to use their clothing for longer or enable others to do so, without directly encouraging consumers to consume less. Frick et al. (2021, p. 2), similarly discuss clothing sufficiency as "reducing the purchase of new clothing and, prolonging product lifetime by engaging in behaviours such as care, second-hand acquisition, and clothing exchange".

To gather what has been said and discussed about sufficiency and clothing consumption, a visualisation of the waste hierarchy and relevant changes to clothing consumption is depicted in Figure 2-2. As this hierarchy is consumer focused, recovery was deemed to be more waste preventing than recycling, as is presented in the hierarchy by Price and Joseph (2000), since the evidence shows that textiles donated through charity as a recycling program often end up as waste in the Global South (Brooks, 2015). This had been done in other studies where the focus is on clothing or consumers (Corvellec & Stål, 2017; I. Kim et al., 2021).

*Figure 2-2: Consumer focused Sufficiency Waste Hierarchy for clothing*

*Source: Author's elaboration based on (Corvellec & Stål, 2017; S. Kim et al., 2018; Price & Joseph, 2000; Sandberg, 2021)*

A concept and a movement that encompasses the actions of the presented hierarchy very well is 'slow fashion'. The concept is sometimes described as an approach or movement that combines both efficiency and sufficiency in the fashion industry because it also puts focus on buying fewer articles of clothing (Fletcher, 2010; Freudenreich & Schaltegger, 2020; Pookulangara & Shephard, 2013), which as mentioned in a previous section is important to even out potential rebound effects. Despite the scarcity of literature combining sufficiency and clothing consumption, slow fashion has been extensively investigated. Research shows that consumers tend to think that taking part in slow fashion, and therefore giving up on buying cheap fast fashion, was expensive and that they could not afford it (Pookulangara & Shephard, 2013). As part of a study on the social acceptability of sustainable clothing alternatives, it was revealed that one-fourth of the population took a clear stance towards keeping their clothing consumption to a minimum. However, this was not a voluntary choice but rather because their income did not allow for more clothing purchases (Kleinhückelkotten & Neitzke, 2019), further highlighting the difference between voluntary and involuntary sufficiency.

### Barriers for sufficiency activities in clothing consumption

With regards to barriers, Connell (2010) presents a literature review on barriers to eco-conscious clothing consumption, where she categorises the barriers as internal and external. The internal barriers included limited concern and knowledge among consumers about the environmental implications of clothing consumption, negative attitudes towards sustainable clothing, internal motivation and values, lack of control, and time and effort. The external barriers included high prices of sustainable clothing, lack of infrastructure and social and cultural norms (Connell, 2010). Reviewing newer articles that mentioned specific barriers, similar barriers are mentioned; however, a few more need to be pointed out. A study showed that Millennials and Gen Z lacked the skills and knowledge to repair clothes (Diddi et al., 2019). However, it did not mention if they did indeed have the skills to repair, if they would do it, or even more interesting, if they did have access to repair services, would they use them or not. Emotions related to buying new clothes were additionally mentioned as a barrier by Diddi et al. (2019). Concerning sufficiency transitions, Sandberg (2021) provides a literature review where five barriers to such transitions

were identified: consumer attitudes and behaviour, culture, economic system, political system and the physical environment. Consumer attitudes and behaviour relate to consumer opposition to consuming less, their needs and motivations. The barrier of culture is centred around normalisation and mainstreaming of sufficiency practices. The barriers of economic and political systems related to how structural changes are needed. Finally, the physical environment is seen as a barrier, such as an infrastructure to enhance sufficiency transitions (Sandberg, 2021). Harris et al. (2016) presented numerous barriers to sustainable clothing. The barriers related to consumers' mind-set or habits were lack of consideration of durability, social pressure to not re-wear clothes and seeing clothes as disposable. Following the characterisation of Connell (2010), Figure 2-3 depicts a summary of the barriers as internal and external.
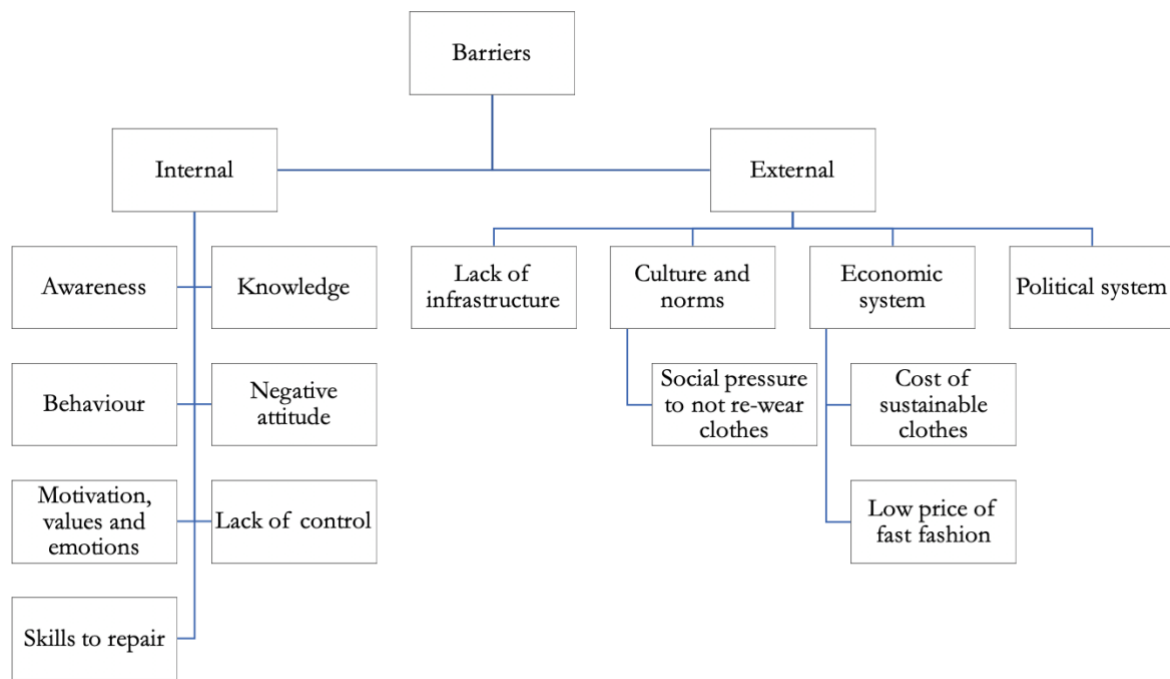


*Figure 2-3: Barriers as internal and external*

*Source: Author's elaboration based on (Connell, 2010; Diddi et al., 2019; Harris et al., 2016; Sandberg, 2021)*

Related to awareness, knowledge and behaviour, the knowledge-behaviour gap (sometimes referred to as the value-behaviour gap, attitude-behaviour gap or intention-behaviour gap) has been reported by numerous scholars to be present when it comes to sustainable clothing consumption (Hassan et al., 2016; Jacobs et al., 2018). The gap refers to how consumers have particular values or hold knowledge about certain aspects of their consumption habits, but their actions or behaviour do not correspond to their values or attitudes (Hassan et al., 2016; Joshi & Rahman, 2015). This gap leads to the fact that even if sustainability is valued and consumers state that they value sufficiency, in practice, they end up not acting upon those values and knowledge.

These barriers presented here come from the literature around sustainable clothing consumption and overall sufficiency transitions, as literature on specific barriers for sufficient clothing consumption is limited.

## Social practice theory

Clothing consumption has been studied from different perspectives and with different theories, e.g. theory of planned behaviour (Wiederhold & Martinez, 2018) and behavioural reasoning theory (Diddi et al., 2019). However, viewing clothing consumption from a social practice theory (SPT) perspective can offer a different insight and help detangle the practice of consumption. Over the last two decades, SPT has been used frequently to research consumption and consumers (Brand, 2010; Reckwitz, 2002; Røpke, 2009; Sahakian & Wilhite, 2014; Shove et al., 2012; Shove & Pantzar, 2005; Warde, 2005).

Social practices are complex actions because individuals do not always act rationally, and analysing and understanding these practices is therefore not always straightforward (Heiskanen & Laakso, 2019). As per one of the simpler explanations made by Shove et al. (2012), SPT consists of (i) meanings and understandings, (ii) skills and competence, and (iii) materials, which are connected through practitioners through regular performances (Shove & Pantzar, 2005). The practitioners, or carriers of these practices, are individuals (Røpke, 2009), or in the case of this thesis, consumers. The elements and their connection is depicted in Figure 2-4.
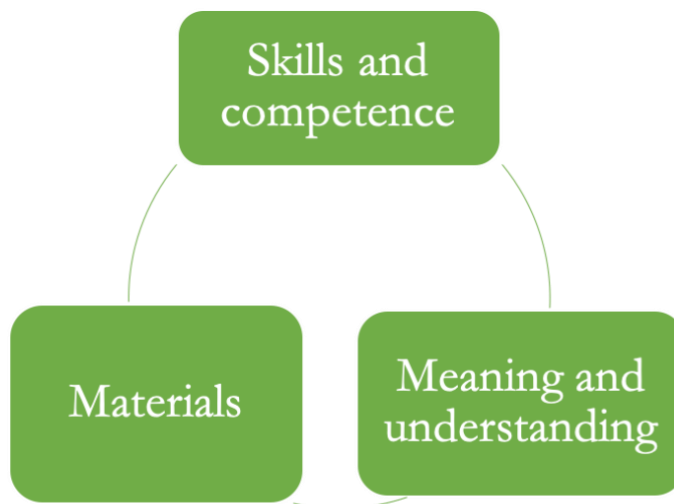


*Figure 2-4: The three elements of Social Practice Theory*

*Source: Author's elaboration. Adapted from Shove et al. (2012)*

The meaning and understanding elements of the theory relate to shared understandings and emotions related to practices and beliefs (Røpke, 2009; Shove et al., 2012). Meanings can, in addition, be more generic where the meaning can be shared by many practices, such as the idea of doing something that is environmentally friendly or not (Røpke, 2009). Clothing consumption in this thesis relates to how consumers think about sufficient clothing consumption and the emotions related to those activities. The skills and competence elements relate to particular know-how, practical knowledge, abilities to perform a practice and procedures (Shove et al., 2012). In the context of clothing consumption, this can mean the actual purchases of clothes, taking care of clothes and disposal. Finally, the materials are material things and technology (Shove et al., 2012), which can relate to infrastructure or finances in the context of this thesis. However, finances could also fall under competence since it relates to financial ability, but this will be connected to materials for simplicity.

SPT changes how we look at sustainable consumption as it "moves the focus from isolated behaviours towards socially shared practices, that is, embodied habits, institutionalized or

otherwise shared knowledge, meanings and engagements, and materials and technologies" (Heiskanen & Laakso, 2019, p. 161). According to Warde (2005), consumption alone is not a practice, instead, it should be viewed as a collection of numerous different practices. Looking at consumption as a practice means analysing "a chronic ambivalence between two contrasting senses, of purchase and of using-up, both of which are equally inscribed in everyday language and scholarly analysis" (Warde, 2005, p. 137). As per Røpke (2009), the connection between a practice and the environment is through the materials element, how the material is produced, used and finally discarded, as well as the infrastructure necessary for the practice to be conducted. In this sense, consumption deals with the transformation of materials into waste, highlighting the use and discard section of the cycle (Røpke, 2009). Heiskanen and Laasko (2019) argue that SPT moves the focus to the motivations, wants, and reasons for unsustainable behaviour instead of focusing on the unsustainable behaviour itself. In this sense, SPT does not focus on getting consumers to purchase more sustainable clothing but instead investigates the reasons and meaning behind the consumption, focusing on the root of unsustainable consumption (Heiskanen & Laakso, 2019).

It has been argued that sufficiency needs to be explored from a SPT perspective to be better understood and responded to appropriately by policymakers and practitioners (Kropfeld, 2019). In their research on sufficiency in social practice, Speck and Hasselkuss (2015) differentiate clearly between *practices as performance* and *practices as entities*. The former is based on Reckwitz (2002), where the practises are "tangible, observable actions, different skills, knowledge and competences that actors need to engage in" (Speck & Hasselkuss, 2015, p. 3). On the other hand, the latter describes practices embedded in society and are (re)produced by many individuals in a social system (Speck & Hasselkuss, 2015). This thesis looks both at sufficient clothing consumption as a practice performed through activities and practice as entities where consumption habits are embedded in the society we live in.

Similarly to Revilla and Salet (2018), this thesis focuses on the meaning part of SPT to analyse and understand sufficient clothing consumption. The meaning part of the theory is concerned with making sense of the activities involved in the practice (Røpke, 2009). However, competencies will also be part of the analysis where the ability and know-how to consume sufficiently will be addressed. This practice of focusing on one or two elements of social practice theory is common, as per the analysis made by Kropfeld (2019).

SPT was used in this study to inspire the data collection, keeping the main focus on statements relevant to the elements of meaning and competence. SPT was further used for the analysis, where distinguishing statements for each social perspective identified were mapped out in relation to the appropriate element of the theory.

# 3   Research design, materials and methods

This chapter depicts the research design employed for this thesis and the chosen data collection methods and analysis that allowed the author to arrive at the findings. The following section will explain the justification of the chosen methods and the limitations they entail.

## 3.1   Research design and methodological choices

This study was conducted using an inductive approach, employing mixed methods based on the stated aim and research question. This rationale is based on the nature of the research problem addressed in the thesis and the author's belief that one method would not fully capture the topic at hand (Ivankova et al., 2006). Furthermore, due to the nature of this study's research question, the Q methodology was chosen as the most suitable. Q methodology is used when studying a subjective topic and basing the analysis on people's perspectives (Webler et al., 2009). Q methodology is characterised as a mixed-method approach because even though it is mainly based on qualitative data, it uses statistical approaches in the analysis (Barry & Proops, 1999). The choice of a mixed-method study is supported by the lack of research utilising mixed methods when studying sufficiency. Qualitative data is important in this matter, but quantitative can also inform decision-makers (Kropfeld, 2019).

When doing this type of research, it is critical to acknowledge the researcher and how the researcher's perspective may impact the study. How the researcher views the world and how we know what we know has an unavoidable influence on the research and must be addressed (Creswell & Creswell, 2018). When it comes to research, I identify with the worldviews of constructivism and pragmatism. Constructivism is based on the thinking that because of different experiences, individuals develop subjective meanings on various topics. Consequently, researchers holding this worldview put their focus on exploring peoples' views. (Creswell & Creswell, 2018). But because I do not solely depend on qualitative data, the pragmatic worldview also needs to be discussed. Within the pragmatic worldview, researchers are free to choose multiple theories and rules to answer research questions. Furthermore, pragmatism acknowledges that research problems might need multiple methods to be appropriately addressed, and researchers are therefore free to choose the method that works in their context (Creswell & Creswell, 2018; Leavy, 2017).

Figure 3-1 depicts the research design employed for this thesis. The literature review plays a vital role in formulating the problem definition and research questions and paves the way for Q methodology data collection. The gathering of statements for Q methodology entailed interviewing consumers and analysing secondary data such as newspaper articles and blogs. After employing the Q method, common viewpoints of consumers were put forth through factor analysis.
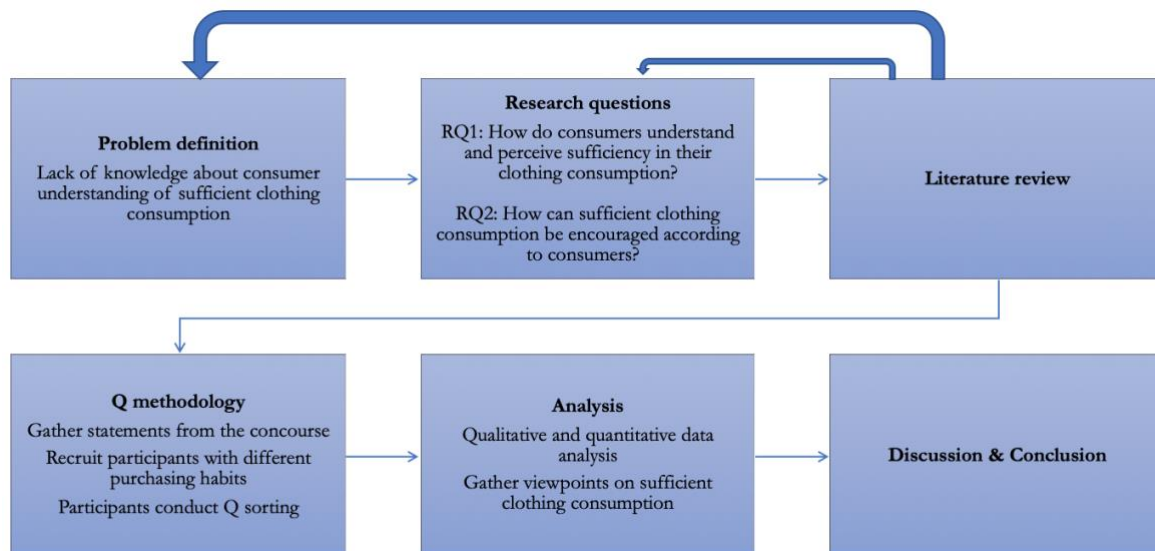
*Figure 3-1: The research design*

*Source: Author's elaboration*

### 3.1.1  Target group/participants

This study focuses on the perception and view of female millennial consumers in Iceland. The age definition of millennials varies, as they have been defined to be born between 1980 and 2000 (Carpenter et al., 2012) or being born between sometime in the '80s to sometime in the '90s (Licsandru & Cui, 2019). For simplicity, this thesis defines millennials as between 25 and 40 years old. The rationale for choosing millennials lies in that they are considered a consumer group that has increased their disposable income over the years, making them an active consumer group (Hill & Lee, 2012). At the same time, they have also been reported to be more conscious of the impact their consumption behaviour has on the environment (Smith & Brower, 2012; Sorensen & Jorgensen, 2019). Women are the target demographic since they have been observed to be more interested in purchasing clothing, and according to a survey, 80 per cent of the sample indicated that women were responsible for fashion-related purchases in the household (Jónasdóttir, 2021).

## 3.2  Methods used to collect data

### 3.2.1  Literature Review

In order to gain knowledge about the field of sufficient consumption and fashion related topics, a literature review was conducted using keywords such as sufficiency, sufficient consumption, and sufficient clothing consumption. [1] The key word 'self-sufficiency' or 'self-sufficient' was left out of the search, as this concept has another meaning than sufficiency, as has been described in previous sections of this thesis.

The search engine primarily used was Scopus. However, Google Scholar and LUB Search were also used as additional tools. All titles of studies were scanned during the search, and when deemed relevant, the abstracts were skimmed. Additional literature was further found through cross-referencing. If abstracts were considered appropriate for this thesis, the papers were saved in relevant folders in Zotero. Zotero kept an overview of the sources where articles were

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[1] Search strings can be found in *I. Appendix – Inventory of keywords for Literature Revie*

categorized based on their abstracts and relevant tags added to Zotero. Most sources included in the literature review were academic peer-reviewed articles. However, the review also included other sources such as PhD and Master's theses and grey literature (blogs) to complement the initial review. The primary objective was, as stated before, to gather initial knowledge of the subject. The purpose was further to gather knowledge that would guide the interviews and help frame statements for data collection.

Nvivo was used for reading and coding the literature. The articles deemed relevant for further reading were uploaded to Nvivo and read and coded using the software. Nvivo allows for the creation of codes and sub-codes, which proved very helpful when reviewing the available literature. One significant limitation that needs to be addressed is that the conducted literature review for this thesis can never be fully saturated. That is, it is not possible to review all relevant literature.

## 3.2.2 Q methodology

To be able to answer the research question, Q methodology was employed. Q methodology is categorised as a mixed method, utilising both qualitative and quantitative methods, that can be used to research and measure perceptives on a particular matter (Sneegas et al., 2021; Stephenson, 1953). The method has been described as qualitative with a quantitative nature and referred to as 'qualiquantilogical' (Stenner & Stainton Rogers, 2004). Q methodology was first presented by a psychologist, William Stephenson, in the 1930s (Stephenson, 1953). In essence, Q methodology explores a discourse about a specific issue or topic. It is designed to objectively study a subjective topic (Webler et al., 2009). The method has been used in various fields, including psychology, communication and political science, and behavioural and health sciences (Brown, 1993). Researchers employing Q methodology to measure perspectives on matters relating to sustainability and environmental governance increased rapidly over the years 2000 to 2018 (Brown, 1993). Environmental Science is the second most populous field, behind Social Sciences, in terms of publications published in Scopus that have "Q methodology" in their abstract.[2] Publications range in terms of topics, from food assurance (Eden et al., 2008), to acceptance of wind farm proposals (Ellis et al., 2007), to fast fashion and second-hand clothing (Sorensen & Jorgensen, 2019), to sustainable tourism (Nikraftar & Jafarpour, 2021).

Q method is considered to be particularly appropriate to measure subjectivities more objectively than other methods (Brown, 1993; Stephenson, 1953). Brown (1986, p. 58) explicitly says "Only subjective opinions are at issue in Q, and although they are typically unprovable, they can nevertheless be shown to have structure and form, and it is the task of Q technique to make this form manifest for purposes of observation and study". Q methodology is, therefore, especially appropriate when exploring the concept of sufficiency and the different meanings consumers associate with the concept.

Generally, Q methodology is comprised of seven steps (Barry & Proops, 1999; Webler et al., 2009), which are depicted in Figure 3-2. Brown (1993) describes the process in a straightforward manner:

> Most typically in Q, a person is presented with a set of statements about some topic, and is asked to rank-order them (usually from "agree" to "disagree"), an operation referred to as Q sorting. The statements are matters of opinion only (not fact), and the fact that the Q sorter is taking the statements from his other own point of view is what brings subjectivity into the picture. There is obviously no right or wrong way to provide "my point of view" about

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[2] Based on personal observation in Scopus 15. March 2022

anything…" "yet the rankings are subject to factor analysis, and the resulting factors, inasmuch as they have arisen from individual subjectivities, indicate segments of subjectivity which exist (Brown, 1993, p. 93)
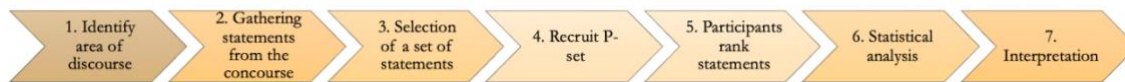


*Figure 3-2: Steps of Q methodology*

*Source: Author's elaboration. Adapted from Barry and Proops (1999) and Webler et al (2009)*

It is important to note that the goal of Q methodology is not to generalize across populations but rather to identify unique views and perceptions of a broad and diverse group of participants (Sorensen & Jorgensen, 2019). Therefore, the number of participants is not as crucial as when designing a questionnaire. Instead, it is more important to recruit people who have different views on the topic (Webler et al., 2009). Furthermore, it is considered that one of the strengths of Q methodology is that it "allows individual responses to be collated and correlated, so as to extract 'idealized' forms of discourse latent within the data provided by the individuals in the study" (Barry & Proops, 1999, p. 338).

### Step 1. Discourse identification

The discourse identified for this thesis is what consumers think about sufficient clothing consumption and what that kind of consumption practice means to them. Sufficiency is a subjective concept with no one clear definition (Gorge et al., 2015; Gossen et al., 2019; Spangenberg & Lorek, 2019), meaning that the concept can mean different things to different people. Individual experiences and views, therefore, influence how they understand the concept.

### Step 2. Concourse

The concourse is what is said or written about the subject, based on opinions, beliefs and understanding (Brown, 1993), "Concourses thus arise from shared understandings, although the specific content may not be normative for all; meanings may differ even for a single person depending on the particular context of subjective communicability" (McKeown & Thomas, 2013, p. 18). The concourse can be derived from numerous sources, such as newspapers, websites, public records, and scientific literature. Alternatively, interviews can be conducted with individuals with strong opinions on the subject (Sneegas et al., 2021; Webler et al., 2009). According to Webler et al. (2009), interviews are highly valuable when it comes to creating the Q sample (the statements). They can act as a re-creation of the concourse on the topic and lead to appropriate Q statements. The interviews aim to "generate a database of natural-language statements about the topic" (Webler et al., 2009, p.14). However, as per the review of studies using Q in environmental sustainability research by Sneegas et al. (2021), reviewing various documents is the most common way to gather the concourse. Their study showed that 60 of the population of 162 articles only used documents as concourse sources. It was further reported that studies using multiple sources are increasing, leading to increased quality of data (Sneegas et al., 2021).

For this thesis, a mix of sources was used to develop the concourse on the subject of sufficient clothing consumption. Firstly, three interviews were conducted in March 2022. Each lasting between 20-40 minutes. Interviewees were first purposefully recruited based on the author's knowledge of their clothing consumption based on their social media presence, followed by two interviews where snowball sampling was used. The characteristics and information of each

interviewee are depicted in Table 3-1. It was necessary in order to recreate the concourse around the topic to interview both consumers who try to consume sufficiently and consumers who do not necessarily consider sufficiency when it comes to clothing consumption.

*Table 3-1: Information on interviewees*

| Gender | Age | Occupation | Recruitment | Sampling | Clothing consumption |
|--------|-----|------------|-------------|----------|---------------------|
| Female | 27 | Stylist | Known by author | Purposive | Buys only second-hand or vintage, in large quantities |
| Female | 31 | Psychologist | Known by author | Purposive | Buys both second-hand and new, in small quantities |
| Female | 24 | An employee in a clothing store | Known by another interviewee | Snowball | Buys both second-hand and new, in large quantities |
| Female | 28 | Sport scientist | Known by another interviewee | Snowball | Buys primarily new, in large quantities |

*Source: Author's elaboration*

First, four interviews were conducted to map the concourse. The last interview yielded a small number of new statements. As a result, this source's saturation was deemed complete. According to Mazur and Asah's (2013) discussion, this is comparable to how saturation of statements is typically achieved.

The interviews were semi-structured, and interview questions were designed based on the literature reviewed and connections to the meaning and competence elements of the social practice of consuming clothes. First, deductive questions were asked to allow the interviewee to explain what comes to mind when talking about sufficiency in her own words. The next section of questions was centred around the many aspects that have been included in the description of sufficient clothing consumption. Finally, questions about how to encourage sufficiency should be conducted were asked. A translation of the interview guide can be found in *II. Appendix – Interview Guide.* The interviews were recorded, and notes were taken during and after the interviews.

The study also used other sources to complement the data collected from the interviews. These sources were blogs, newspaper articles, social media posts and YouTube videos. This thesis, therefore, builds upon a hybrid sample of statements, both naturalistic (interviews) and adapted (other sources) (McKeown & Thomas, 2013). A mix of deductive and inductive coding was used to code the notes from the concourse. Codes from the literature review were used to guide the analysis while also allowing codes to emerge from the concourse. The process and categories are depicted in Figure 3-3.
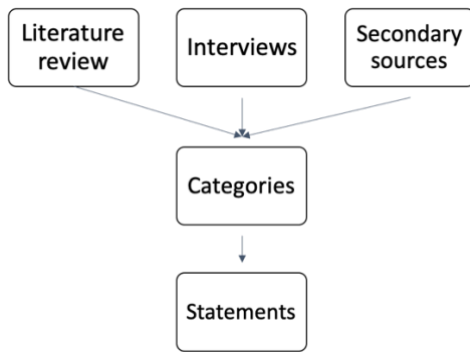
*Figure 3-3: The process of developing the final Q-set*

*Source: Author's elaboration*

A variety of codes emerged from the concourse, as depicted in Table 3-2. The concourse created in this step yielded a total of 99 statements. After removing statements that might be understood as similar, 90 statements remained.

*Table 3-2: Codes and sub-codes from the concourse*

| Codes | Sources |
|---|---|
| **Barriers** | |
| Cost | Interviews & literature (Connell, 2010; Pookulangara & Shephard, 2013; Sandberg, 2021) & other (Jóakimsdóttir, 2018) |
| Time and effort | Interviews |
| **Awareness** | Interviews & literature (Pookulangara & Shephard, 2013) |
| **Definition** | |
| Avoid | Interviews & literature (Figge et al., 2014; Freudenreich & Schaltegger, 2020; Gorge et al., 2015; Gossen & Kropfeld, 2022) & other (Jóakimsdóttir, 2018; *Textíll*, n.d.) |
| Enoughness | Interviews & literature (Göpel, 2016; Gorge et al., 2015; Kropfeld & Reichel, 2021; Spengler, 2016) |
| Repair | Interviews & literature (Frick et al., 2021; Persson & Klintman, 2021) & other (Jóakimsdóttir, 2018; *Textíll*, n.d.) |
| Quality and durable clothes | Interviews & literature (Pookulangara & Shephard, 2013) & other (Jóakimsdóttir, 2018; *Textíll*, n.d.) |
| Sharing/renting/leasing | Interviews & literature (Sandberg, 2021) & other (Jóakimsdóttir, 2018; *Textíll*, n.d.) |
| Second-hand | Interviews & literature (Alexander, 2012; Frick et al., 2021) & websites (*Textíll*, n.d.) |
| Recycling/charity | Interviews & other (Jóakimsdóttir, 2018; *Textíll*, n.d.) |
| Sustainable brands | Interviews & other (Jóakimsdóttir, 2018; Vilhjálmsdóttir, 2020) |
| **Spirituality** | Interviews |
| Feel good | Interviews & other (Arna Petra, 2022) |
| **Encouragement** | Interviews & literature (Gossen et al., 2019; Hwang et al., 2016; Ramirez et al., 2017) |

| | |
|---|---|
| Regulations | Interviews & literature (Lorek & Fuchs, 2019; Mastini & Rijnhout, 2018; Schäpke & Rauschmayer, 2014; Spangenberg, 2018; Spangenberg & Lorek, 2019) |
| **Self-expression** | Interviews |
| **Quantity** | Interviews |
| **Responsibility** | Interviews & literature (Callmer, 2019; Heindl & Kanschik, 2016; Lorek & Spangenberg, 2019; Spengler, 2016) & other (*Fatasóun - Hvað Getur Þú Gert?*, 2018) |

*Source: Author's elaboration*

### Step 3. Identifying and selecting Q statements

The final Q-set, a selection of statements, is drawn from the concourse created in the previous step (Sneegas et al., 2021). This is a crucial step for the study and has been referred to be a step more resembling art rather than science (Brown, 1980). The concourse was coded, and to make sure each code was represented in the final Q set, the statements were reviewed to make sure that at least two statements were present for each code. However, a number of statements were coded into more than one code. Next, it was important that the selected statements for each code were not too similar to each other, and the statements were reviewed with that in mind. At this point, the number of statements was narrowed down to 50. It is worth mentioning that interviewees had strong thoughts about how sufficient consumption should or should not be enhanced, or encouraged. Therefore, statements adhering to those codes were included as they were thought to give more information about consumers' perceptions on sufficient consumption.

As per Revilla and Salet (2018), for the Q set to represent the concourse around the subject, the selected statements need to be very different from one another. Quotes from the interviews were used, as long as paraphrased statements from the rest of the concourse. The final list of statements can be found in *III. Appendix – List of Q statements*.

### Step 4. Identify and recruit Q participants

According to the criteria discussed by Webler et al. (2009), the number of participants depends on how many common viewpoints the researcher hopes or thinks will emerge. According to Webler et al. (2009), Q studies usually result in 2-5 social perspectives. No more than four to six individuals are needed to "define" the perspective for each social perspective. Based on these criteria, the number of participants can range from eight to 30 (Webler et al., 2009). However, it is impossible to determine the number of perspectives that will emerge before conducting the study. On this note, Webler et al. (2009) point out that the number of Q participants must be fewer than Q statements, and a ratio of 3:1 is normally used. Because of this, many Q studies have 12 to 20 Q participants. The reason for the low number of participants needed for a study of this kind is that participants are only variables in the study (Webler et al., 2009). This is supported by Brown (1993, p. 94) "since the interest of Q methodology is in the nature of the segments and the extent to which they are similar or dissimilar, the issue of large numbers, so fundamental to most social research, is rendered relatively unimportant".

When doing Q methodology, participants are not chosen at random. Researchers try to recruit people that are likely to have strong opinions on the topic and are as heterogeneous as possible (Van Exel & de Graaf, 2005). As per the review of Q methodology in environmental sustainability research by Sneegas et al. (2021), purposive sampling is the most common method. The most common pairing is the pairing of purposive and snowball sampling. Therefore, the P sample is not comprised of random participants but rather chosen because of their anticipated

viewpoint. Participants were selected based on their clothing consumption over the past six months and how they purchased their clothes. Individuals interested in taking part in the Q sorting exercise were asked how often they bought clothes in the last six months and how (e.g. new, second-hand, vintage or swap). Based on their answer, they were either allowed or denied participation. This was done to ensure at least minimal difference in clothing consumption practices of participants and, therefore, possibly different views on sufficiency when it comes to their clothing consumption. The interviewees from the previous step were asked to participate and help recruit possible participants. Advertisements were further put forth on various Icelandic Facebook groups relating to fashion, conscious consumption and finally, a group for university students. These platforms were chosen to approach individuals who might have a clear view of the subject and are relevant to the target participants. In the end, the snowball recruitment proved most fruitful, as participants who had already taken part in the Q sorting would point to other possible participants. Finally, 18 individuals participated in the study and filled in their Q-sorts.

### Step 5. Conduct Q sorts

Before presenting the statements to the participants, they needed to answer seven multiple choice questions and one open ended question. First, they were presented with questions about certain demographics, such as age and level of education. The other five questions were about their clothing consumption, and finally, an open question about what sufficiency means to them. A list of the questions can be found in *IV. Appendix – Survey Questions*. These questions were mainly designed for the participants to reflect and think about their clothing consumption before diving into the statements.

The participants did the survey and Q sorting online through Q-sorTouch (Pruneddu, 2016). Participants received a link and submitted their responses, the time it took participants to answer the survey and do the Q sorting varied from 17 to 51 minutes. According to Brown (1993), it is good to let the participants read over all of the statements before doing the Q sorting. In line with this objective, the participants were asked to first sort all of the statements in three categories, agree, neutral and disagree, as a means for them to read over all of the statements and get familiar with them before doing the actual Q sorting. The participants then got clear instructions on how to rank the 50 statements, from most agree to most disagree, in a Q sorting grid, as is depicted in Figure 3-4. As per van Excel and de Graaf (2005), when knowledge and involvement is excepted to be low, the distribution of the grid should be steeper. This is done to leave appropriate room for ambiguity and indecisiveness of the participants. Since the participants of this study were consumers and not experts on sufficient consumption, knowledge was excepted to be relatively low, and a seven scale grid was therefore employed.

First, participants go through the statements they agreed with the most in the previous step and assign them to one of the categories in Figure 3-4. They then go through the statements they felt neutrally about and, finally, the ones they disagreed with the most. The software clearly indicates if there are too many statements in a category and becomes green when the right number of statements are assigned. The software, therefore, gives participants a good overview of the categories. Participants got the opportunity to move statements around before they submitted their unique view. In the final step, participants are asked to explain why they categorized the statements that they felt most strongly about in their respective categories. 13 participants gave feedback on their choices (see *V. Appendix - Feedback from participants*)

| | | | | | | |
|---|---|---|---|---|---|---|
| Most disagree with | | | Neutral | | Most agree with | |

| -3 (n=4) | -2 (n=7) | -1 (n=9) | 0 (n=10) | 1 (n=9) | 2 (n=7) | 3 (n=4) |
|---|---|---|---|---|---|---|
| | | | | | | |
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*Figure 3-4: Score sheet for the Q sorting of 50 statements.*

*Source: Author's elaboration*

The final steps (statistical analysis and interpretation) will be described in the next section.

## 3.3 Data analysis

As the analysis of the literature review, the conducted interviews, as well as the other sources for the Q methodology, have already been described in their respective chapters, this section will focus on the analysis of the Q sorts.

Analysis of Q methodology data is centred around analysing each participant's Q-sorting, which, as explained in a previous section represents their unique viewpoint (Barry & Proops, 1999). First, the data from Q-sorTouch was extracted and downloaded so that it could be imported into a free software called KADE (KenQ Analysis Desktop Edition) (Banasick, 2019). The software starts by presenting a correlation matrix for all the participants, revealing how similar or dissimilar the participant's viewpoints were in the study. Then, an analysis of factors is done. There are two types of analysis available in the software, Practical Component Analysis (PCA) and Centroid Analysis. Centroid Analysis is most commonly used by Q researchers who do the rotation by hand. The most distinguishing difference between these two types is that Centroid analysis focuses only on commonality among Q sorts without highlighting the specificity of individual Q sorts. However, PCA highlights both factors (Webler et al., 2009). Therefore, a PCA was deemed appropriate for this thesis. The factors derived from the PCA represent clusters of participants' common subjective viewpoints (Sneegas et al., 2021). The number of similar factors varies between studies and depends on the number of participants that give their unique Q sort, as explained by Webler et al. (2009, p. 10); "In a Q study the variables are the Q sorts. If we have 20 Q sorts, then there are 20 variables. A factor analysis attempts to boil this complexity down to a simpler picture, usually between 2 and 5 factors". There were 18 participants in this study, thus a maximum 18-factor solution was possible where each factor would represent the view of each participant. However, this is not the objective of Q methodology, which is to cluster together similar participants' views. The PCA employed resulted in eight possible factors to be extracted. Only three factors were picked for the next

step since they were the ones that had eigenvalues >1, which is one of the criteria used in factor extraction (Sneegas et al., 2021).

The PCA was followed with a rotation. There are two possible rotation methods available, manual and varimax rotation. Varimax rotation was chosen for this thesis as it rotates the factors resulting in participants only being associated with one factor. Manual rotation was deemed irrelevant since it attempts to test how certain participants' perspectives relate (Webler et al., 2009). The Varimax rotation resulted in an overview of the four factors and the Q-sorts they represent, as well as the factor loadings of the Q-sorts for each factor. Factor loadings of each Q-sorts represent how much they load onto a particular factor. As per Brown (1980), a statistically significant loading at P < 0.01 level can be calculated as follows:

$$2.58 \times \left( \frac{1}{\sqrt{N}} \right)$$

In this formula, the N stands for the number of statements in the Q-set. For this thesis, a significant loading was considered to be equal to or greater than 0.36, as per the calculation in Table 3-3.

*Table 3-3: Calculation of a significant loading for the study*

| $2.58 \cdot \left( \frac{1}{\sqrt{50}} \right)$ | 0.36 |
|---|---|

Furthermore, flagging is considered an important step since flagging Q-sorts means that "the final description of each factor will be based on a weighted average of only those sorts flagged as loading on that factor" (Webler et al., 2009, p. 30). The Auto-Flagging tool available in KADE was therefore used. Further factor extraction followed the criteria put forth in Table 3-4.

*Table 3-4: Criteria for factor extraction*

| | |
|---|---|
| *Humphrey's Rule I*: Each factor has at least 2 significant loadings. | Factor A: 7 loadings <br><br> Factor B: 5 loadings <br><br> Factor C: 5 loadings |
| *Humphrey's Rule II*: Cross product of 2 highest loadings exceeds 2× the standard error. | All factors adhere to this criteria, see calculation in Table 3-5 |
| *Kaiser-Guttman criterion*: Eigenvalue > 1. | Factor A: 7.88 <br><br> Factor B: 1.80 <br><br> Factor C: 1.15 |
| *Subjective meaning*: Perspective encompassed by factor is meaningful and theoretically | All factors represent meaningful perspectives, and thus relevant for |

| important.⌐SEP⌐ | interpretation |
|---|---|

*Source: Author's elaboration. Based on (Sneegas et al., 2021; Watts & Stenner, 2012)*

*Table 3-5: Calculation of Humphrey's Rule II*

|  | A | B | C |
|---|---|---|---|
| Standard error (SE) | 0.184 | 0.219 | 0.219 |
| 2x SE | 0.368 | 0.438 | 0.438 |
| Cross product of the two highest loadings | 0.581 | 0.589 | 0.572 |

*Source: Author's elaboration*

It is important to note that the correlation between factors was tested and was higher than anticipated. However, these factors were still analysed as separate social perspectives, as they each represented an interesting point of view for this thesis. The correlation between factors is depicted in Table 3-6. However, a high correlation does not mean fewer differences between the factors (Song & Ko, 2017).

*Table 3-6: Correlation between factors*

|  | Factor A | Factor B | Factor C |
|---|---|---|---|
| Factor A | 1 | 0,514 | 0,705 |
| Factor B | 0,514 | 1 | 0,0.472 |
| Factor C | 0,705 | 0,0.472 | 1 |

*Source: Author's elaboration*

The final step of Q methodology is the interpretation, which involves the Q researcher making their own judgements about the social perspectives that emerge from the data. As Webler et al. (2009, p. 10) points out: "It is the task of the Q researcher to figure out the qualitative meaning of these new variables, or 'factors'.". The findings section will therefore be dedicated to the interpretation of the data. For clarity, in the next chapter, the factors extracted from the data will be described as 'perspectives' or 'social perspectives'.

# 4 Findings and analysis

The following chapter will present the findings. Firstly, demographic data on the participants will be presented, along with the participant's clothing consumption habits and initial thoughts about sufficiency. Following, section 4.2 will present the different social perspectives identified using Q methodology, as well as the consensus between the factors. The social perspectives will be connected to appropriate meanings and competencies as per social practice theory.

## 4.1 Background of respondents

This section is dedicated to the survey questions participants answered before sorting the statements, starting with demographic questions such as age and educational level. This section also highlights what kind of consumers took part in the study, based on questions about their clothing consumption behaviour. Finally, answers to an open-ended question about initial thoughts on sufficient clothing consumption will be presented.

### *Age*

The target group for this study were millennial women. The millennials were divided into three categories. The majority of the participants (11 participants) were in the youngest category, or between 26 and 30 years, see the distribution in Figure 4-1. This is most likely the result of the initial recruitment for the interview, where three of the interviewees belonged to the youngest age group and only one to the age group of 31 to 35 years. This study employed snowball recruitment as the primary recruitment strategy, it is therefore not surprising that the final number of participants is somewhat similar to the ages of the initial participants recruited. The middle-aged group (31 to 35 years old) was the next most populous age group, with five participants. The age group with the smallest population was the most senior (36-40 years old), where only two participants belonged to that group.
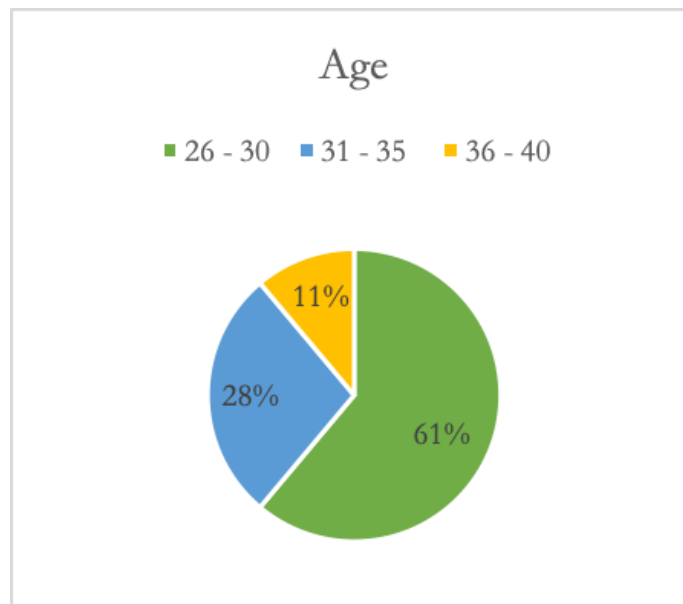


*Figure 4-1: Age distribution of the P-set*

*Source: Author's elaboration*

## *Education*

Of the 18 participants, the majority have completed a Bachelor's degree (12 participants), four participants have completed a Master's degree, and two participants have completed Junior College. The distribution between these three groups is depicted in Figure 4-2.
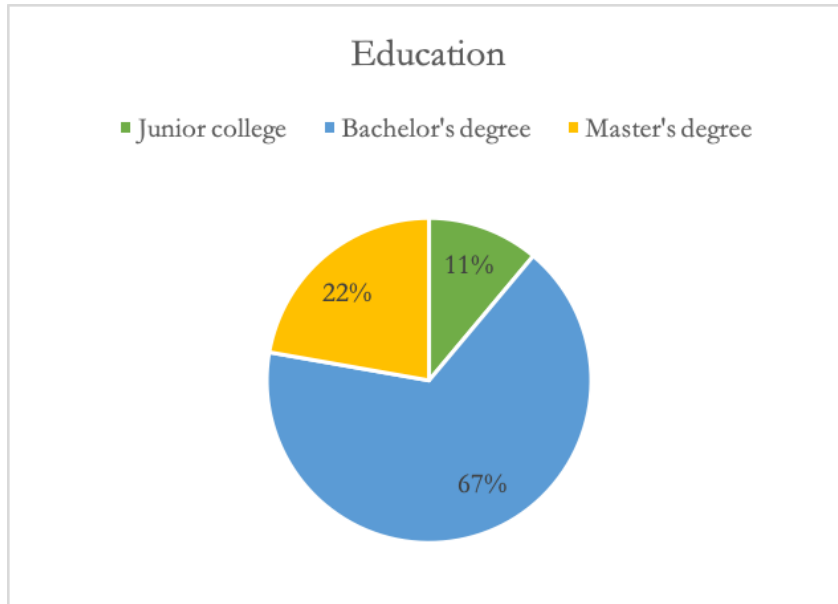


*Figure 4-2: Education level of the P-set*

*Source: Author's elaboration*

## *Clothing consumption*

This section will present the results of five questions about the P-set's clothing consumption. As mentioned in a previous section of this thesis, these questions were designed to get the participants to think and reflect upon their own clothing consumption. These results will further be elaborated on in relation to the analysis of the social perspectives.

Firstly, participants were asked, "*How often, on average, do you purchase clothes?*". They were given six choices, varying from everyday purchases to not purchasing at all. The results are depicted in Figure 4-3.
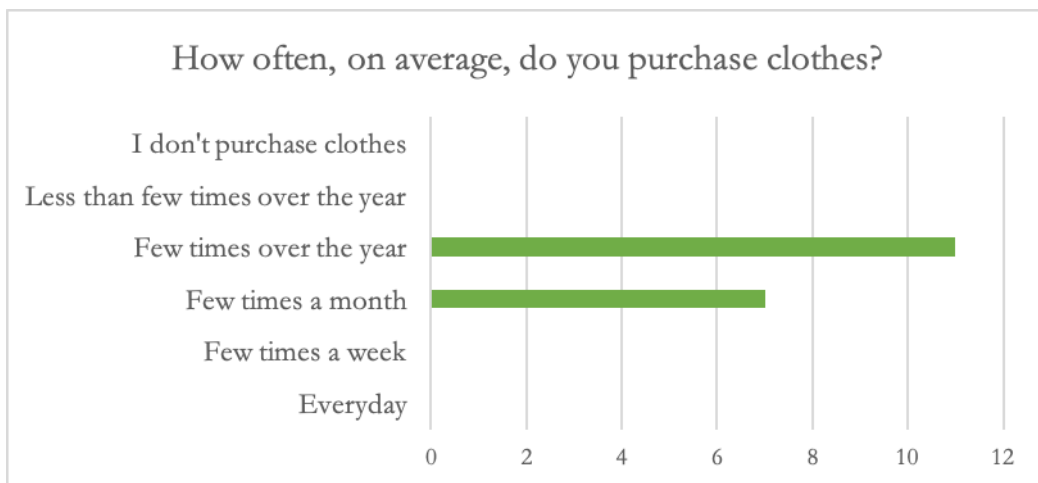


*Figure 4-3: Frequency of clothing purchases of P-set*

*Source: Author's elaboration*

Unsurprisingly, the participants all went for choices in the middle, since in the recruitment, they were asked how often in the six months they had purchased clothing. No one said they had not bought any pieces of clothing, most of the answers were around 1-12 times. This is represented in the graph where most of the participants (11 participants) said they, on average, bought clothes a few times over the year, while the rest answered they bought clothing a few times a month.

When asked if their clothing purchases were intentional or impulsive, the majority (15 participants) said it was a mix of both, while two participants said it was mainly impulsive, and one participant reported that her purchases were mainly intentional. Participants were further asked why they bought clothes, Figure 4-4 depicts the results. For this question, participants were allowed to choose as many options as they felt appropriate; there were a total of five options, four of them are presented in the figure, but the fifth was not chosen, which was 'other' followed by an open answer box. Only one participant chose the option of 'It's a habit – something that I do on a regular basis'. The most popular answer was 'To liven up your wardrobe', which could suggest that the participants feel that it is important not to wear the same clothes too often or that they get bored of the clothes they have after wearing them for a certain amount of time.
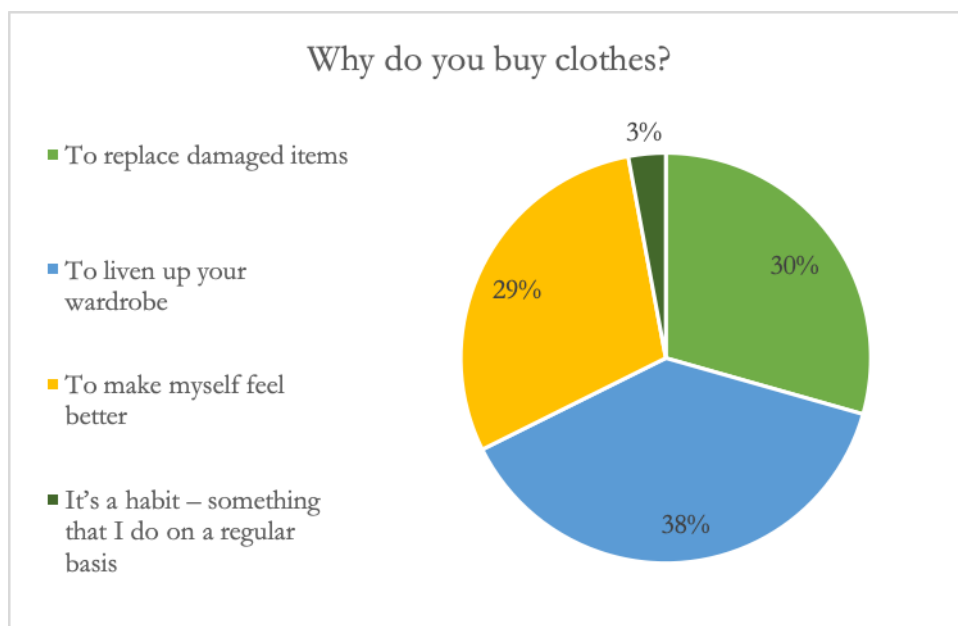


*Figure 4-4: Reasons P-set buys clothes*

*Source: Author's elaboration*

When asked what clothes the participants usually purchase, they were allowed to choose a maximum of two options, resulting in second-hand or vintage, new and cheap clothing being the most popular for this P-set. 12 of the 18 participants reported purchasing second-hand or vintage clothes, while 10 participants reported usually purchasing new and cheap clothes. Furthermore, six participants said they usually purchased new designer clothing and finally, four participants chose new clothes from sustainable or environmentally friendly brands. Figure 4-5 presents the clothing preferences of the P-set. These results suggest that the P-set is composed of consumers that purchase their clothing in a diverse manner.

*Figure 4-5: P-set's clothing preferences*

*Source: Author's elaboration*

Finally, participants were asked to reflect on their clothing consumption and if they thought they were acting sufficiently in that regard (see Figure 4-6). Equally, many thought they were sufficient most of the time and sometimes. Only two of the participants admitted that they were not sufficient in their clothing consumption. Here, the participants were asked to make a judgment about their own consumption.



*Figure 4-6: The P-set's thoughts about clothing consumption in relation to sufficiency*

*Source: Author's elaboration*

### Initial thoughts on sufficient clothing consumption

The last question before participants took part in the sorting of the statements, they were posed with an open question 'What are your initial thoughts about sufficient clothing consumption?'. All participants but one answered this question. The answers were coded using Nvivo, followed by using an online tool to load to the codes and their respective loadings, resulting in a

visualisation of the codes, as is depicted in Figure 4-7 (a full list of the answers can be found in *VI. Appendix - Participant's initial thoughts about sufficiency*)



*Figure 4-7: Code frequency for open question in the survey about initial thoughts about sufficient clothing consumption*

*Source: Author's elaboration using Infogram online tool*

The code 'Use what you have' had the highest number of loadings, with seven loadings, where answers given were about using what was already in their wardrobe and being content with one owns wardrobe. The second most populated code, 'Critical thinking' has six loadings, where the answers were on the lines of not buying clothes without considering the environmental impact of the purchase and asking oneself if the purchase is necessary. Ultimately, the answers centred around not giving into wants and impulsive buying but focusing on needs. One participant mentioned a way that helps her reduce these kinds of purchases *"I feel it helps to close the website (online shopping) or walk out of the store and come back to it later. If I open the website again or walk back into the store, it passes the 'impulsive buying test'."*. Another populated code was the one of 'Second-hand', with four loadings. Two participants answered the question posed only with the words "*second-hand*", meaning that is the first thing that comes to mind. While others mentioned that sufficiency was about avoiding purchases, and when buying clothes is necessary, it would be optimal to purchase second-hand.

## 4.2  Distinctive consumer perspectives and analysis

This section presents the identified social perspectives of consumers regarding sufficient clothing consumption, which was obtained through Q methodology. The methodology resulted in a three-factor solution, meaning the number of social perspectives accepted by the Q researchers as a representation of the P-set. Furthermore, the statements ranked similarly across the different perspectives will be presented, resulting in a consensus of the P-set in relation to particular statements related to sufficiency. Finally, the P-sets justifications for their rankings will be given. Each factor will be discussed in relation to social practice theory, along with highlights on interventions since they did stand out in the analysis.

Nearly all participants had a high loading with one of the social perspectives (17 participants), there was only one participant that did not relate highly to only one perspective. That participant had high loadings for two perspectives (factor A and C) and was therefore not included in the extraction of factors (see all participant loadings to each factor in Table VII-1 (in the Appendix).

The three social perspectives cumulatively explain 60% of the total variance. Table VII-2 (in the Appendix) presents all statements and the corresponding column value for each of the three social perspectives.

The three social perspectives will now be presented, and the statements that most accurately describe the perspective explained. Statements marked in bold are statistically significant for the respective perspective, other statements that are used to describe the perspectives are marked in *italics*, and should only be understood as complementary. An analysis of each factor based on the social practice theory will be presented, along with a short section for each factor on how they view how to enhance or encourage sufficient clothing consumption. Finally, a comparison between the perspectives will be provided and a summary.

## 4.2.1 Perspective A – Quality seekers for sufficiency

Representing the highest percentage of variance, at 44%, perspective A is defined by seven pure loadings. Table 4-1 presents the statements that statistically distinguish this factor, a full image of the Q grid that represents this factor can be seen in Figure VII-1 (in the Appendix). Based on the description below, this social perspective was named *Quality seekers for sufficiency*.

*Table 4-1: Distinguishing statements for perspective A – Quality seekers for sufficiency*

| | Statements | Factor scores | | |
|---|---|---|---|---|
| | **Most agree with** | **A** | **B** | **C** |
| 12 | Sufficiency is to buy quality and long-lasting clothes | 3* | 1 | 1 |
| 36 | Clothes that are produced under questionable conditions should be taxed higher | 3* | 1 | 0 |
| 50 | Clothing companies should encourage consumers to buy less, not more. It should be a part of their environmental policy | 2 | 1 | 1 |
| 13 | Sufficiency is to use the clothes you already have | 2 | 3 | 3 |
| | **Most disagree with** | | | |
| 47 | I feel like I need to buy new clothes when I do not feel good about myself in public | -2* | 0 | 0 |
| | **Other distinguishing statements** | | | |
| 42 | Consumers are the ones responsible for the amount of clothes they consume/buy | 1* | -3 | -3 |
| 6 | Promotions and encouragement to consume more makes practicing sufficiency hard | -1 | 0 | 0 |
| 33 | When I'm feeling down I want to buy new clothes to make me feel better | -1* | 2 | 1 |
| 11 | Quality clothing that are designed to last a long time are too expensive, it is therefore easier to buy many cheap clothes instead | 0 | 3 | -1 |

*Source: Author's elaboration. Note: statistical significance is at < 0.05 level, and (\*) indicate statistical significance at < 0.01 level.*

## Meaning

Like the other perspectives, representatives of perspective A think sufficiency is to use the clothes you already have (*st. 13*). However, it is interesting that they ranked that statement lower than sufficiency to buy quality and durable clothes (**st. 12**). This might suggest that these participants think that to use the clothes you already have, you have to have quality clothes that last a long time. Thinking about why this is, it could be related to the age of participants in representing perspective A. Four of the seven participants representing this perspective are older than 31 years old, compared to the other two perspectives, where only one participant representing each perspective was older than 31 years old. Therefore, it is clear that quality and durability are important for this perspective to practice sufficiency as one of the participants representing perspective A shared: "*Eventually, you buy less if your clothes last longer.*

The findings show that representatives of *Quality seekers for sufficiency* think, at least to some extent, about sufficient clothing consumption as a limit as they feel like it means not to own too many pieces of clothing (*st. 27*). However, they were neutral regarding sufficiency, meaning not to own too few pieces of clothing but rather a little more (*st. 28*). These findings suggest that these participants think about sufficiency similarly to *not everything*, as Gorge et al. (2015) described. In addition, this perspective also reacted positively to other statements relating to the meaning of sufficiency, such as buying less fast fashion, sharing and repairing clothes.

The representative of this perspective took the most negative stance on the statement regarding buying clothes to make oneself feel better when being down (**st. 33**), at -1. However, similarly to the other factors statements, sufficiency is about being happy and content.

## Competences

As mentioned, the ability to purchase quality and durable clothing is essential for representatives of perspective A. As these clothing items are often expensive, it can be suggested that these participants deem that spending more on a few items of clothing is more beneficial than buying many items at a lower price. However, these participants do not think quality and durable clothing are particularly expensive (*st. 11)* since they rank that statement as neutral. This might suggest that they either discover and purchase cheap quality clothing or realise the long-term financial benefit of buying more expensive clothing. This indicates that they either do not feel like the price is high or have a higher disposable income.

Representatives of this perspective did not think that buying clothes was the answer to making oneself feel better (**st. 33**). This might suggest that the participants adhering to this social perspective know what makes them feel better and truly happy and that material objects like clothing do not achieve that objective. Even though this is classified as a competence here, it might also be connected to the meaning element, since it relates to a certain state of mind.

## Materials

Materials connected to Factor A, can be seen as the clothes themselves, and since this factor highly favours quality and durability, this might entail high-end brands or design clothes. Similarly to the other perspectives, other materials for *Quality seekers for sufficiency* include what is needed to repair clothing, infrastructure to share clothing, such as second-hand stores, a platform to sell clothes, and swapping events.

## Responsibility & enhancing sufficiency

In this perspective, contradictory to the others, individuals are, to some extent, responsible for their own clothing consumption (**st. 42**). The other two perspectives rated that statements as completely disagree, while *Quality seekers for sufficiency rated* it at +1. This indicates that

representatives of this perspective think that individuals have power over their consumption decisions. However, if they feel like individuals have the ability to appropriately take responsibility is not clear. Only one participant rated this statement as +3 and explained their choice, they did not give an explicit explanation for their choice "*Focus on cheaper clothes and clothes produced in a bad way. Eventually, you buy less if your clothes last longer*".

Higher taxes on clothing made under questionable conditions was regarded to be a good strategy to increase sufficient clothing consumption (**st. 36**) by perspective A, with one participant saying: "*I think taxation of fast fashion clothes is a good way to make these companies hurt*". Another participant connected this statement to the higher taxation of items imported from Russia at the moment (in relation to the war in Ukraine 2022): "*Governments need to be more involved in reducing clothing consumption, and it's a great idea (in my opinion) to impose higher taxation on clothes that are produced under poor conditions. We are doing this on other fronts (e.g. products from Russia), so this is something that can clearly help reduce unnecessary consumption*". Other interventions were furthermore important to these participants, such as governmental support for local designers that sustainably produce clothes (*st. 38*) and information campaigns on the impacts of clothing consumption (*st. 43*). The only governmental intervention presented in the statements that Factor A did not take a stance on and ranked as neutral was subsidisation for clothing repairs. They were not entirely against (ranked as -1) radical governmental interventions such as a ban on new clothing acquisition (*st. 40*) and caps on clothing consumption of individuals (*st. 39*). This might indicate that this social perspective feels that individuals need governmental assistance to reduce clothing consumption.

Furthermore, representatives of Factor A took the most positive stance on the statement about sufficiency encouragement from clothing companies and that it should be a part of companies' environmental policy (*st. 50*). This suggests that Factor A feel like companies should take responsibility for how their advertisements and promotions affect consumers. Additionally, similar to Factor B, this factor would favour companies that encourage sufficiency and would take their purchases to those companies. This, however, can be interpreted as somewhat contradictory.

## 4.2.2 Perspective B – Vicious cycle consumers

Perspective B represents 10% of the explained variance, with five significant loadings. Table 4-2 presents the distinguishing statements for this particular social perspective. Figure VII-2 (in the Appendix) depicts the statements ranking representing this perspective. This perspective was coined as *Vicious cycle consumers*.

*Table 4-2: Distinguishing statements for perspective B – Vicious cycle consumers*

| | Statements | Factor scores | | |
|---|---|---|---|---|
| | **Most agree with** | **A** | **B** | **C** |
| 8 | Since clothes are often cheap, I allow myself to buy more and find it easy to justify my purchases | -2 | 3* | -2 |
| 11 | Quality clothing that are designed to last a long time are too expensive, it is therefore easier to buy many cheap clothes instead | 0 | 3* | -1 |
| 25 | I don't think I'll ever own enough of clothes | -1 | 2* | 0 |
| 33 | When I'm feeling down I want to buy new clothes to make me feel better | -1 | 2* | 1 |

| 29 | I feel like I am constantly decluttering my closet, but he's always full, still often I feel like I don't have anything to wear | 0 | 2* | -1 |
|----|---|---|---|---|
| **Most disagree with** | | | | |
| 39 | Governments should put caps on how many pieces of clothing each consumer is allowed to buy, then consumer would make better choices | -1 | -2 | 1 |
| 40 | Radical changes are needed to impact clothing consumption, governments should therefore ban consumers to buy NEW clothes | -1 | -3 | -1 |
| 37 | Clothing repairs should be subsidized, that could lead to people buying less new clothes | 0 | -2* | 1 |
| 17 | Sufficiency is to make your own clothes (sew) | 0 | -2* | 1 |
| **Other distinguishing statements** | | | | |
| 45 | Influencers need to use their power to encourage people to use the clothes they own, instead of buying new ones | 2 | 1 | 2 |
| 9 | It's hard for me to enter a clothing store without purchasing something | -3 | 1* | -3 |
| 15 | Sufficiency is to buy less fast fashion | 1 | 0 | 1 |
| 48 | Owning fewer pieces of clothing can reduce stress | 0 | -1 | 0 |
| 14 | Sufficiency is to repair your clothes | 1 | -1* | 2 |

*Source: Author's elaboration. Note: statistical significance is at the 0.05 level, and (*) indicate statistical significance at the 0.01 level*

### Meaning

This perspective stands out in relation to the others when it comes to what sufficient clothing consumption entails. Firstly, here, sufficiency is not thought to be sewing one's own clothing (*st. 17*). It is worth noting that the other factors did not rank this activity particularly high either (0 and 1). This sufficiency activity is, however, an interesting one because here, the clothing producer of the actual item of clothing is replaced by the consumer. There are always some impacts of the production of materials used to make clothing, even if consumers do it themselves. It could be argued that sewing clothes is more related to self-sufficiency than sufficient consumption. Secondly, and more controversially, the representatives of perspective B disagree slightly (-1) that sufficiency means to repair clothes (**st. 14**), which contradicts what has been written about sufficiency. However, it cannot be eliminated that this factor perceives sufficiency along the lines of Gorge et al. (2015) and consider repair to be an efficiency activity rather than a sufficiency one. This is, however, unlikely. Another sufficiency activity that is interesting for this factor and worth it to point out is that they did not want to take a stance on if sufficiency means buying less fast fashion (*st. 15*). This could relate to the fact that these consumers feel like they need to constantly buy more clothes, often fast fashion, to be able to wear the latest fashion and avoid wearing the same thing often. One participant points out:

> *"Although fast fashion is a big part of the problem when it comes to clothing consumption and its environmental impact, fast fashion brands are often the only option for some people, due to lower income or*

*due to lack of size selection at other brands. And therefore it is quite possible to be sufficient and make good use of one's clothes even if one buys the well-chosen clothes with fast fashion brands."* [3]

Here the participant points out even though fast fashion is a problem, consumers can practice sufficiency with their fast fashion clothes, if that it their intention. Suggesting that expensive and quality clothes does not equal sufficient clothing consumption. Furthermore, encouraging consumers to purchase durable clothes that often are expensive might not change how much they consume, they would simply spend more of their disposable income.

In regards to mentality, the representatives of this perspective, like the others, agree to some extent that sufficiency is about being content and happy (*st. 20 = 1, st. 49 = 1, st. 19 = 0*). However, this factor was the only one that disagreed that owning fewer pieces of clothes can reduce stress (**st. 48)**. This was highlighted by a participant saying that she felt more stressed when she had fewer clothes: *"I have not experienced stress when I have a lot of clothes, rather when I have few clothes"*. This could be related to the stress of feeling like you have nothing to wear, or having to wear something often.

### *Competences*
For the representatives of this perspective, hands-on know-how, such as knowing how to repair clothes or making them yourself, is not needed when consuming clothing sufficiently. However, knowledge and understanding about how to use the clothes they already own better are required or the ability to recognize what brands produce clothes that are designed to last longer.

Another essential aspect for the participants adhering to this perspective is the feeling of not owning enough clothes, as this factor rated statements **25**, **33** and **29** considerably higher than other factors. These statements can be interpreted as being centred around mentality regarding clothing consumption. Firstly, they agree that they do not think they will ever own enough clothes (**st. 25**), and that they are constantly de-cluttering their closet and still feel like they have nothing to wear (**st. 29**). One participant compared her clothing consumption to a vicious cycle and found it difficult to see a way out:

> *This is an endless vicious cycle that one is in regarding clothes. You feel like you have nothing, go and add to the wardrobe that is already overfull and then feel terrible because of the clothing industry's environmental impact. But then you also do not want to buy more expensive clothes that are supposed to be more durable because you want to have a selection and not always wear the same clothes repeatedly. Wearing new clothes gives one a certain joy and a bit of a "new beginning" feeling, resulting in a mix of joy and remorse in a person's head. You do not know whether to choose or reject, but that may be where the ignorance comes in. If I knew more about the effects of fast fashion and the like, I would probably think twice before buying more. But then the vicious cycle begins again when "you have nothing to wear".*

Here expensive durable clothing is not seen as a particular barrier concerning cost but rather the limitation a sufficient wardrobe entails. Also, the joy of new clothes is described, which relates to how high the statement about buying new clothes can make people feel better (**st. 33**). However, another participant points out that this mentality that people cannot wear the same things again needs to be changed: *"People nowadays are too eager to buy new clothes for every occasion instead of using the clothes they have - this is a "trend" at least in Iceland, not to show up in the same dress twice, this " trend "needs to be terminated"*. These participants, therefore, lack the ability to realise how to

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[3] According to APA rules, all direct quotations of more than 40 words should be indented. The quotations from the empirical data are further italised, to differentiate from citations from the Literature review.

use their clothes for different occasions and possibly how different pairings of clothes can change the overall look.

The competence to being able to resist temptation inside stores is a statistically significant barrier for these participants when compared to the other perspectives since they both ranked it at -3. In contrast, the representatives of perspective B ranked it at +1 (**st. 19**). However, these participants do not take a stance on if promotions and marketing of clothing companies make it harder for them to reduce their consumption (*st. 6*), as is described by one participant: "*Marketing stuff has little effect on me, I do not get like "I have to get this" when I see an ad, more when I walk into stores and try clothes on*". This is an interesting comment, but it could be argued that marketing campaigns might be aiming at the subconsciousness of consumers, to draw them into the stores, where the temptation to purchase something is harder to resist.

As mentioned earlier, participants identifying with the perspective of *Vicious cycle consumers* often buy fast fashion and justify the purchase because of the low price and find it hard to reduce their consumption because they feel like they never have enough clothes. Interestingly enough, this perspective, similarly to the others, ranked the statement about thinking about who made the clothes helps reduce their clothing consumption (*st. 4*). This seems to be a bit contradictory since there has been increased awareness of the environmental impact of fast fashion and the human rights of the people who make the clothes (Ellen MacArthur Foundation, 2017). This, therefore, indicates that these consumers have, at least to some extent, knowledge of the impact their clothing consumption has without them having the ability to change their consumption behaviours.

### Materials

For this perspective, the representatives feel like they are always decluttering their closets but still have nothing to wear (**st. 29**), it could therefore be interpreted that the closet plays a big role in their consumption as it stores the clothes and represents how much they own.

Furthermore, it is evident by looking at the distinguishing statements that the consumers that identify with this perspective consider that they have a problem with their clothing consumption and are not sure how they can reduce their clothing consumption. Looking at the statements they ranked the highest, it can be concluded that these consumers purchase a lot of fast fashion and that the price is one of the significant incentives for high consumption levels, as one of the participants put it: "*it is difficult to resist temptation when they are cheap and accessible*". Here accessibility is also considered a barrier to sufficient consumption, meaning the physical stores. Even though it is not explicitly stated, it can be assumed that the participant meant how many fast fashion stores are now available in Iceland, especially with the addition of H&M, which opened in Iceland in 2017. Furthermore, another price point that the participants of this perspective feel strongly about is the price of quality and durable clothing (**st. 11**). Therefore, both the low price of fast fashion and the high price of quality clothing are seen as barriers to practice sufficiency. In this regard, these participants lack the material, or finances, to purchase quality clothing.

### Responsibility & Interventions

The findings can be interpreted as the representatives of perspective B are the most against governmental interventions. These representatives ranked various statements relating to governmental interventions lower than other perspectives and highly value more soft measures. They are firmly against governments banning buying new clothes (*st. 40*), which would lead to people having to have to purchase clothing second-hand. As one participant put it and highlighted that the government is not responsible for the high consumption levels of consumers: "*I somehow do not think it is the right way for the government to decide how much clothing each person can have, I think that education is the right way for the government to contribute, because in the end the*

responsibility rather with the clothing companies and the consumer I think, rather than the government*”*. Another participant thinks that radical interventions are not the way to go and argues that softer measures are more appropriate: *“I say that the government can not be bothered with the purchase of consumer clothing in the sense that they can not say “ no you can not buy this “, but they can have an indirect effect with precisely trade sanctions, education and encouragement in the other direction*”*. Governments banning something can be interpreted as a loss of freedom for consumers and would not be appreciated by consumers identifying with perspective B.

Furthermore, these participants disagreed the strongest with putting caps on how much clothing consumers can buy (**st. 39**). However, they did not disagree as firmly as with the previous statement about bans (*st. 40*). Even though they prefer softer measures, they disagree that clothing repairs should be subsidized, which would lead to reduced consumption levels (**st. 37**). This is in line with their thinking that clothing repairs should not be considered as sufficiency (**st. 14**). Furthermore, the statement about using repair services more if they were more accessible was not ranked highly (*st. 41*, -1), but was mentioned in a comment by a participant being because she did not see it being worth it because she does not buy expensive clothes: *“Since I do not buy a lot of expensive clothes I would not consider it worth taking them for repair, but as I write this I see that I am deeply immersed in fast fashion and probably need to rethink my consumption habits*”*. This reaction to government interference is comparable to what some scholars have described in terms of the unpopularity of these restrictions. (Schäpke & Rauschmayer, 2014; Spengler, 2018).

### 4.2.3  Perspective C – Sufficiency as a state of mind

At 6% of the total explained variance, perspective C, has five significant loadings. Distinguishing statements are presented in Table 4-3. For a full figure of the statement ranking for this perspective, see Figure VII-3 (in the Appendix). This perspective has been named *Sufficiency as a state of mind*.

*Table 4-3: Distinguishing statements for Factor C – Sufficiency as a state of mind*

| | Statements | Factor scores | | |
|---|---|---|---|---|
| | **Most agree with** | **A** | **B** | **C** |
| 49 | Sufficiency is to be happy with what you have, this doesn't only apply to clothes but also friends and family | 2 | 1 | 3* |
| | **Most disagree with** | | | |
| 32 | Everyone has the right to buy as many items of clothing as they choose | -1 | 0 | -2 |
| | **Other distinguishing statements** | | | |
| 39 | Governments should put caps on how many pieces of clothing each consumer is allowed to buy, then consumer would make better choices | -1 | -2 | 1* |
| 17 | Sufficiency is to make your own clothes (sew) | 0 | -2 | 1 |
| 18 | Sensible washing of clothes encourages sufficiency | 0 | 0 | 1 |
| 11 | Quality clothing that are designed to last a long time are too expensive, it is therefore easier to buy many cheap clothes instead | 0 | 3 | -1* |

| 40 | Radical changes are needed to impact clothing consumption, governments should therefore ban consumers to buy NEW clothes | -1 | -3 | -1 |
|---|---|---|---|---|

*Source: Author's elaboration. Note: statistical significance is at the 0.05 level, and (*) indicate statistical significance at the 0.01 level*

### Meaning

Looking at this perspective, what stands out the most is the perception of sufficiency as being happy, in more fields than clothing consumption (**st. 49**). This statement was ranked the highest by representatives of perspective C, even though the other perspectives also ranked it positively. One of the participants commented on this statement, saying: "*Sufficiency seems to me to be quite a matter of state of mind and to be content that way*". This can relate to having sufficiency as a mind-set and lifestyle. However, it needs to be noted that this factor did not take a stance on the statement stating that sufficiency leads to more happiness (*st. 19*) or that owning fewer clothes reduces stress (*st. 48*). This perspective, therefore, does not necessarily believe that consuming less clothing would result in more happiness or lower stress level. Instead, the mentality of being content and pleased with what you have is more significant and is not necessarily tied to the number of clothes one has.

The participants identifying with perspective C, similarly to the others, reacted positively to several statements about the meaning of sufficiency. However, what should be addressed is that this perspective took a positive stance regarding that sufficiency indicates making your own clothes (*st. 17*) and how sensible washing can encourage sufficiency (*st. 18*). One participant gave feedback on statement 18, saying: "*it's just a matter of thinking about where the holes come from and that we take good care of our clothes so that they last us a long time*". Meaning that consumers need to be aware of where their clothes are getting damaged, and step in and make changes in order for the clothes to last longer, ultimately resulting in consumers not having to buy more clothes.

### Competences

For this perspective, the ability to think about clothing consumption differently is important to consume more sufficiently. This might relate to some a mind-set change where clothes are seen as durables rather than consumable objects, as well as applying the concept of sufficiency to more than just clothing consumption. Additionally, this is the only factor that thinks knowing how to wash clothes properly (*st. 18*) and how to make clothes (*st. 17*) is important for sufficient clothing consumption. Therefore, it is both important to change the mind-set and gather hands-on know-how.

### Materials

Distinguishing for representatives of perspective C, materials that enhance sufficient clothing consumption are in the forms of infrastructure for washing and making clothes themselves. Infrastructure for washing means access to washing machines that handle clothes delicately, which in Iceland means owning such washing machines since laundromats are not common. To be able to make clothes, particular materials are needed in the form of fabrics and tools.

### Responsibility & interventions

Furthermore, compared to the other perspectives, the participants adhering to the perspective of *Sufficiency as a state of mind* are the most in favour of governmental interventions. They ranked four interventions positively (education, support to local designers, caps and subsidization for repairs). They disagreed relatively strongly (-2) with the statement that the government should not be bothered with consumers' clothing consumption (*st. 44*). Similarly to perspective A, they

ranked the ban on buying new clothes (*st. 40*) as -1, which can be understood as though they are not entirely against it. The only governmental intervention the representatives of this perspective did not take a stance on was higher taxation on clothes produced under questionable conditions (*st. 36*). The participants of this perspective were the only ones that reacted positively to putting caps on the number of clothing consumers are allowed to buy (**st. 39**). Therefore, representatives of perspective C can be said to respond the most positively to radical governmental interventions and think that more is needed than consumer education. As one participant put it: "*I think it's very important that the Government comes in with radical changes, endless information campaigns don't change behaviour, and radical interventions are needed fast in order to something to change*".

## 4.3  Consensus and differences among the perspectives

The above-presented perspectives have some significant overlaps but also differ substantially from one another. This section will analyse the points of consensus and the points of difference, utilising the three elements of the Social Practice theory, i.e. meaning, competence and materials, as well as responsibility and interventions. Figure 4-9 depicts the most distinguishing aspects of the three social perspectives and the elements of consensus, which will be described in detail below.
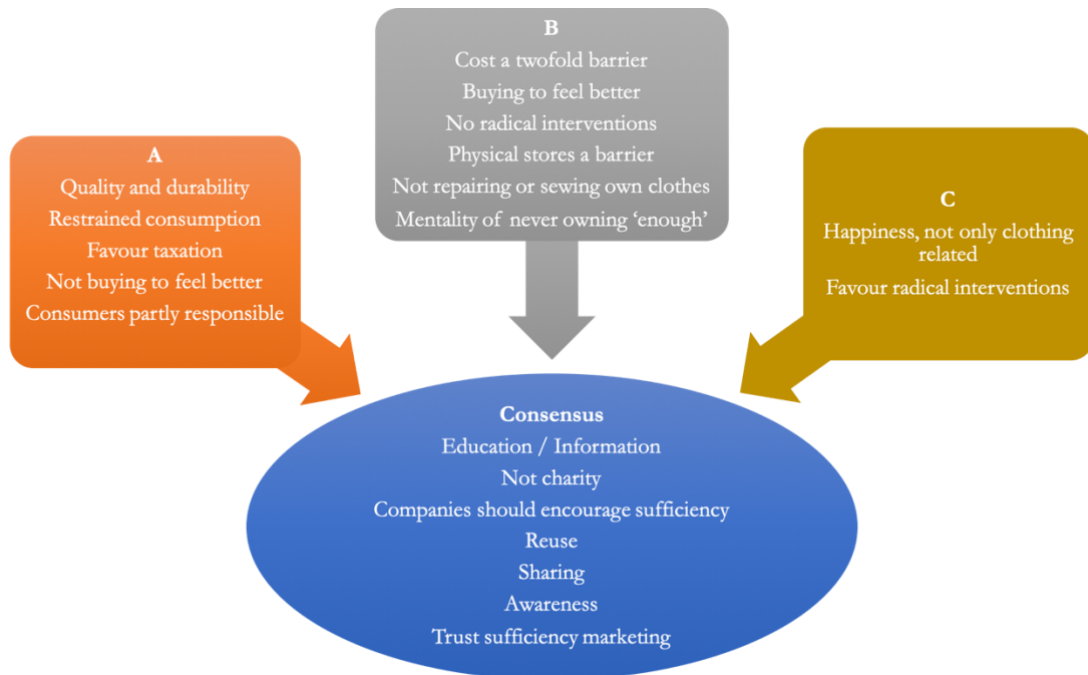


*Figure 4-8: The three social perspectives and the consensus*

*Source: Author's elaboration*

### 4.3.1  The consensus among the perspectives

The points of consensus between all three perspectives are summarised in Table 4-4 as consensus statements and all the perspectives' scores. The number of consensus statements could be the result of the narrow Q sort grid designed for this study. However, there is no easy way of knowing if consensus statements would have been fewer with a wider grid. The consensus should not be interpreted as a social perspective, however, it is important to highlight the commonalities.

*Table 4-4: Consensus statements and factor scores*

| | Statements | Factor scores | | |
|---|---|---|---|---|
| | | **A** | **B** | **C** |
| 38 | The government should support local designers that are making clothes in a sustainable manner | 2 | 2 | 2 |
| 31 | If I buy clothes from sustainable brands, it doesn't matter how much I buy | -2 | -2 | -1 |
| 34 | I am encouraging sufficiency when I give my clothes to charity | -1 | -1 | -2 |
| 30 | If I only buy second-hand or vintage clothes, it really does not matter how much I buy | -2 | -2 | -1 |
| 22 | I do not trust companies that encourage less consumption in their marketing materials | -2 | -2 | -1 |
| 21 | Businesses should encourage consumers to practice sufficiency | 1 | 2 | 2 |
| 50 | Clothing companies should encourage consumers to buy less, not more. It should be a part of their environmental policy | 2 | 1 | 1 |
| 1 | I don't think that my clothing consumption has a high impact, looking at the big picture, thus I don't feel the pressure to reduce my clothing consumption for environmental reasons | -3 | -3 | -2 |
| 13 | Sufficiency is to use the clothes you already have | 2 | 3 | 3 |
| 16 | Sufficiency means to share clothes, both with friends and family, and through formal channels | 3 | 2 | 3 |
| 45 | Influencers need to use their power to encourage people to use the clothes they own, instead of buying new ones | 2 | 1 | 2 |
| 43 | The government needs to educate consumers more on the environmental impacts of their consumption | 3 | 3 | 2 |
| 35 | Since I know I can always re-sell clothes, it is not a problem that I sometimes buy new clothes and never use them | -2 | -1 | -2 |

*Source: Author's elaboration*

## *Meaning*

Firstly, looking at the statements that all of the factors reacted very positively to, it is clear that sufficiency to consumers means to use the clothes you already have (st. 13), which consequently indicates not consuming more. As one participant pointed out: "*I think people (myself included) should try to use the clothes I already have better, not always buy new ones for a new occasion, that's sufficiency to me*". This is unsurprising since most of the participants answered the question about initial thoughts about sufficiency in this direction. There was also consensus about sufficiency entailing sharing clothes through both formal and informal channels. Sharing clothes can refer to many different things, re-selling, buying second-hand, swapping and more.

According to the P-set, even if consumers exclusively buy second-hand clothing (st. 30) or clothing from sustainable brands (st. 31), they must consider the quantity of clothing they purchase. This suggests that sufficiency must relate to an amount of clothing. However, what that quantity entails is unclear.

Finally, the findings show consensus between all perspectives regarding giving clothes to charity does not lead to consuming clothes sufficiently (st. 34). One participant mentioned that giving clothes to charity was only an altruistic action to justify further buying sprees: "*Sufficiency is not giving clothes to charities because it's just a pretext to buy more*". Another participant pointed out that it is difficult to know where clothes end up after giving them to charity: "*People often think that they are doing good things when they donate clothes to charities, but most of the clothes end up in piles in countries in the Global South*".

## Competences

All participants seem to be aware of their clothing consumption's impacts since all perspectives disagreed very strongly or strongly with that relevant statement (st. 1). This might suggest that education is not enough for consumers to change their behaviour since eight participants reported they only sometimes practice sufficiency when it comes to their clothing consumption. Two reported that they do not think of themselves as sufficient. In addition, ten participants said they mainly purchase new and cheap clothes. However, one participant explains how her attitude has changed over the years:

> *I admit that when I was younger I wandered between H&M stores and bought too many clothes, especially when I was abroad and thought "this was so cheap". Today, fortunately, my thinking has changed, but I can understand why people think that way. But since I could correct this way of thinking, others should be able to do the same.*

As mentioned above, all factors think of sharing clothes as consuming clothes sufficiently (st. 16), drawing attention to the competence entailed in such an activity. The statement mentioned both sharing clothes with family and through more formal channels. The competencies associated with sharing thus involve the understanding that sharing clothes is a good idea and should be treated as such.

## Materials

As the consensus is that sufficiency entails sharing clothes (which, how the statement was framed, can mean various activities), the proper infrastructure must be in place. Such infrastructure includes second-hand stores (both Business-to-consumer (B2C), consumer-to-consumer (C2C)), online platforms to share, clothing sharing events, such as swapping events, and companies that offer consumers to borrow clothes. For all the participants, using what they already own, the clothes in their wardrobe should be seen as an essential material (st. 13). Therefore, the closet or the furniture that stores the clothes already owned is also an important material.

## Responsibility & interventions

Furthermore, it is important to consumers that clothing companies take responsibility and encourage consumers to consume less. Two statements relate to this aspect (st. 21 and st. 50), which were put forth to see if the wording of "clothing companies" vs "businesses" mattered in this context. The participants ranked both of the statements similarly. Some participants gave feedback about this: "*Companies and the State should be more responsible for how the consequences of clothing purchases and clothing production are communicated to consumers*" and "*Companies need to take responsibility, help with confidence to buy something new that really suits you, the more you use your clothes the more sufficiency,*

*the more use of each garment the better and less consumption of other products that maintain a vicious circle*". However, even though on average, the P-set agreed on this, one comment stood out that questioned sufficiency encouragement by businesses:

> *Regarding the statement about encouragement from businesses, I do not think it is entirely appropriate for a company trying to sell a product to advertise it but then encourage consumers not to buy too much, a little contradictory and might not be favourable to the company. It would certainly have a negative effect on their sales which would be good for us environmentally but not good for the company, it therefore does not make a lot of sense to me.*

Here, the contradiction is highlighted and how it would not make much sense for companies to encourage sufficient consumption because they would suffer losses. However, Hwang et al. (2016) highlighted that Patagonia increased their revenue after publishing its "Don't buy this jacket" campaign. Consumers seemed to appreciate Patagonia's approach. This is supported by how the P-set in this study reacted to the statement about not trusting companies that encourage sufficiency (st. 22). All three factors reacted negatively, meaning they would indeed trust companies that encourage sufficiency in their marketing materials. This finding contradicts barriers for businesses to promote sufficiency, as found by Gossen et al. (2019), where businesses were under the impression that consumers would react negatively to such promotions, finding them unusual or untrustworthy. However, the findings of this study are comparable to the conclusion made by Ramirez et al. (2017), where consumers reacted positively to pro-environmental demarketing and found it to be more trustworthy.

Governmental interventions that were reacted to positively across the three factors were educational programs for consumers about the impact of clothing consumption (st. 43) and governmental support to local designers that produce clothing in a sustainable manner (st. 38). The following feedback was made in regards to educating consumers and how, in the long run, consumers can impact the amount of clothing in the world: "*Education increases knowledge and increased knowledge gives us the power to make better choices. If we all take on and buy less, it goes without saying that demand decreases and consequently supply*". Here informed consumers are highlighted. Furthermore, another participant highlighted the importance of mixing measures that aim at companies, alongside education to consumers:

> *There is a need for more education and discussion about the effects of clothing consumption, but at the same time we need to stop focusing on individuals and rather push companies and producers and make it harder for them to sell all these clothes. I think changing the behaviour of individuals changes something in the long run, but we need to learn more about the harmfulness of consumerism and not just "choose a little better" with whom we shop but still continue to shop.*

Here the participant might be referring to the potential rebound effects of green consumption where consumers might not reduce the amount consumed because they feel like they are making good, altruistic purchasing decisions (Alcott, 2008).

One statement in the Q-set was directed at social media influencers, and all factors agreed that these actors should be using their power to encourage consumers to reduce their consumption. This, however, might be considered a controversial subject since influencers often collaborate with companies and get their income from advertising their products (Backaler, 2018).

One more aspect that should be addressed is the consensus between perspectives B and C about how consumers are not the ones responsible for how much they consume/buy (st. 42), where these factors both ranked this statement as -3. This suggests that representatives of these two perspectives feel like the government and companies are responsible for the system that

consumers are only users of, as one participant mentions: "*Consumers are just users of the system set up by the government and companies. It is, therefore, more important than the system changes and the government intervenes*". Another participant highlights the demands that we as a society put on ourselves: "*Consumers are not the only ones responsible as we live in a society that places high demands on the appearance of people, and there are so many major influencing factors that are driving this extreme consumption that we are pursuing*". This view is further highlighted by another participant: "*I do not agree that consumers alone are responsible for the quantity they buy because there is endless pressure in society to look good, wear nice clothes, etc. that is external*". According to these two perspectives, focusing on consumers as the problem will not change anything, and structural changes are more beneficial.

Looking at a consensus for a topic using Q methodology is a vital component of the findings; that is, even if the factors differ significantly, they agree on several points, and to reach everyone in the P-set, these points of consensus should be of high importance.

## 4.3.2 Comparison of the perspectives

Taking a step back and comparing the three social perspectives gives an interesting insight (Table 4-5).

*Table 4-5: Summary of how different social perspectives view sufficiency activities*

|  | Factor | | |
| --- | --- | --- | --- |
|  | **A** | **B** | **C** |
| Using what you already own | yes | yes | yes |
| Buy quality and durable clothes | yes | yes | yes |
| Share clothes | yes | yes | yes |
| Not own too many pieces of clothing | yes | neutral | neutral |
| Repair clothes | yes | no | yes |
| Make own clothes | neutral | no | yes |
| Not own too few pieces of clothing | neutral | neutral | no |
| Washing clothes sensibly | neutral | neutral | yes |

*Source: Author's elaboration*

### *Meaning*

Only participants representing social perspective A related their understanding of sufficient clothing consumption to not owning too many pieces of clothing, which relates to one of the classifications by Gorge et al. (2015), 'not nothing'. 'Not nothing' means that consumption is restrained without making too many sacrifices. The results, therefore, indicate that sufficiency to participants identifying with Factor A relates to restraining clothing consumption without controlling it too much. On the other end of the spectrum lies scarcity, not owning too few pieces of clothing. Only participants identified with Factor C took a clear stance on that statement, where it was reacted to negatively. Gorge et al. (2015) describe this part of sufficiency

as 'nothing', representing scarcity and most often obligatory sufficiency, where there are financial constraints. Seeing that participants in this study took a negative, or no stance at all, might lead to the interpretation that the participants do not think that sufficiency can not be obligatory in that sense, only voluntary or enforced by external actors (such as governments or businesses).

According to the overview in Table 4-5, consumers do not think of sufficiency as only avoiding consumption but rather a range of activities that ultimately reduce consumption. However, this study did not address the possible rebound effects of the activities. Therefore, these activities only lead to less resource consumption if the consumption levels of other or in other domains do not increase because of the savings achieved. These activities are mostly compatible with how Sandberg (2021) presents consumption change for sufficiency transitions. An updated version of Sandberg's (2021) table with activities studied in this thesis is shown in Table 4-6.

*Table 4-6: Sufficiency activities compared to consumption changes for sufficiency transitions*

| Type of consumption change | Definition | Sufficiency activities |
|---|---|---|
| Absolute reductions | Reducing the amount of consumption | Using what you already own, not owning too many pieces of clothing |
| Modal shifts | Shifting from one consumption mode to one that is less resource intensive | Shifting from fast fashion brands to sustainable fashion brands, making clothes yourself |
| Product longevity | Extending product lifespans | Repair, buy quality and durable clothing, washing clothes sensibly |
| Sharing practices | Sharing product among individuals | Sharing clothes (e.g. swapping, renting clothes, buying and selling second-hand) |

*Source: Author's elaboration. Adapted from Sandberg (2021)*

Making clothes yourself was not highlighted in the literature review as a sufficiency activity. However, it was mentioned by one of the interviewees and therefore included in the study. This practice might be more in line with practices of the slow fashion movement (Bain, 2016; Fletcher, 2010). However, compared to the consumption changes presented by Sandberg (2021), making clothes can be argued to be part of modal shifts. However, this might only be true if less resource-intensive materials are used.

None of the social perspectives related to giving clothes to charity as part of sufficiency, as was presented as the next last resort in the waste hierarchy for consumption practices for sufficiency in section 2.2, which was based on literature (Corvellec & Stål, 2017; S. Kim et al., 2018; Price & Joseph, 2000; Sandberg, 2021). That figure can therefore be said to describe the consumer practices of this study well.

### Competence

As noted in the literature review, clear barriers are present for sufficiency transitions and sustainable clothing consumption. These barriers can also be identified in this study on sufficient clothing consumption. Most notably, all of the participants responded positively to being aware of the impact of their clothing consumption. However, highly relevant for representatives of the social perspective of *Vicious cycle consumers* is the knowledge-behaviour gap (Hassan et al., 2016; Joshi & Rahman, 2015). These participants are aware of their clothing consumption's impact without their behaviour reflecting their knowledge. This, however, is not present with

the other social perspectives of this study. Looking at the differences between perspective B on the one hand and A and C on the other hand, the difference might lie in how representatives of perspective B think that they do not have the finances to purchase quality and durable clothing, which would lead to lower consumption levels. However, this does not necessarily need to be a barrier, as Lundblad and Davies (2016) argued. They suggest that if consumers would indeed buy less, even though the pieces were more expensive, it would result in financial savings. This indicates that knowledge about the ultimate financial savings of quality and durable clothing needs to be enhanced for the perspective of *Vicious Cycle Consumers*.

Another barrier evident in the findings and relevant to all the perspectives is knowledge or awareness about what amount of clothes is enough. This is a highly abstract question that is hard to answer. If enoughness was only considered in regards to needs, not wants, it could possibly be quantified. However, that is not the case in today's affluent societies, where wants can be argued to steer consumption. Scholars agree that it is affluent societies that need to reduce their consumption. However, without consumers knowing what is acceptable or 'enough', it can be difficult for them to act.

Representatives of perspective B did not associate sufficiency with clothing repair, although researchers suggest that this measure will ultimately reduce material consumption. This finding, therefore, suggests that understanding how repair can help regarding product longevity is a barrier that needs to be addressed. Furthermore, the barrier of knowing how to repair is relevant for the other two factors, similarly as was argued by Diddi et al. (2019).

## *Materials*

Highlighting the differences relating to the materials elements of SPT sheds light on what material things the representatives of the different perspectives feel are needed to practice sufficient clothing consumption. The materials distinguishing the perspective of *Quality seekers for sufficiency* are high-quality and durable clothes, which can be interpreted as the consumption change of product longevity as presented by Sansberg (2021). However, it could also be understood as modal shifts, as consumers would shift from purchasing fast fashion to higher quality clothes that last longer. For the participants identifying with *Sufficiency as a state of mind*, the distinguishing materials include infrastructure to wash clothes appropriately since washing clothes correctly can extend their lifetime. Other materials include items needed to make clothes yourself. These materials can also be related to product longevity (Sandberg, 2021) and can further be argued to fall under the recovery stage of the consumer-focused sufficiency waste hierarchy presented in section 2.2. Distinguishing for the perspective of *Vicious cycle consumers* are the materials of physical stores, which represents a significant barrier for these consumers, relating to lack of control, which was mentioned as a barrier by Connell (2010). If financial activity is understood as a material aspect, the high prices of quality clothes are a barrier, similar to the external barrier of economic systems presented by Connell (2010), which was further confirmed by Sandberg (2021). Finally, from this perspective, the wardrobe is an essential element. This is where all the clothes are stored, and the illusion of having nothing to wear happens.

## *Responsibility and interventions*

As was discussed in the literature review, a debate is ongoing about who should be responsible for the transition to a more sufficiency driven consumption. This debate can be said to prevail among the participants in this study. Figure 4-9 presents the perspectives' stance on consumer responsibility against the level of governmental interventions included in this study to look at this divide from another point of view.
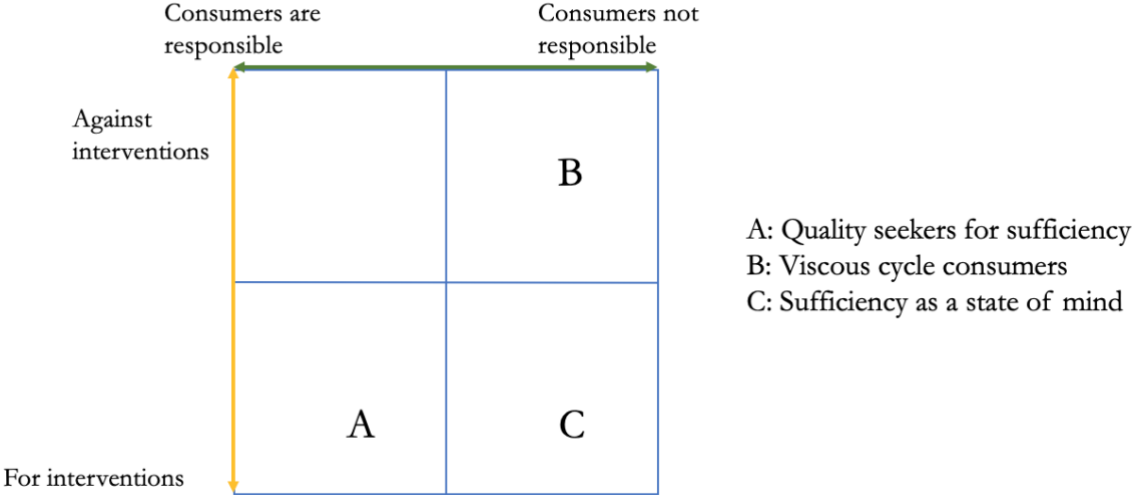
*Figure 4-9: Social perspectives and their view on consumer responsibility and interventions*

*Source: Author's elaboration*

# 5 Discussion

This section will present reflections on the results and reflections regarding methodological choices, legitimacy, and generalisability.

## 5.1 Reflecting on results

As consumers' perceptions of sufficient clothing consumption have not been addressed before in literature, this study maps three different social perspectives on the matter. Furthermore, the consensus of the participants is an additional finding, relevant both for further research and for practitioners. This thesis furthermore aimed to shed light on how consumers perceive different governmental interventions and possible sufficiency encouragement by businesses. The combination of sufficiency activities, SPT and Q methodology, has not been done before, adding empirical evidence to the literature. The limitations of such an approach are discussed in the next section.

The study identified three distinct social perspectives, illustrating how each perspective's representatives interpret and perceive sufficiency in terms of clothing consumption. It is vital to emphasize the distinctions between these perspectives, but it is also necessary to consider the level of agreement between them. The points of consensus could be regarded as essential points for action, and through these elements, implement more change. This study focused on customer perceptions, implying that consumers must modify their consumption behaviour for change to occur. While this is critical, governments and corporations must also play a role. The findings provide insight into how consumers think about sufficient clothing consumption, which may aid practitioners in developing incentives or methods to promote sufficient clothing consumption even further.

Barriers explored in this study were highlighted in the findings and connected to elements of SPT. The barriers of this study are highly similar to the barriers identified in the literature review, which were based on sufficiency transitions and sustainable clothing consumption. The classification of barriers for sufficiency transitions made by Sandberg (2021) applies to the barriers of this study, barriers to sufficient clothing consumption. She categorizes the barriers into the following categories: consumer attitudes and behaviour, culture, economic system, political system and the physical environment.

The knowledge-behaviour gap is evident in one of the social perspectives identified, confirming that the gap is present and needs to be addressed. These consumers are aware of their unsustainable consumption habits but feel like they do not have the correct tools to manage those habits themselves.

Looking at the infrastructure mentioned in this study to assist consumers in consuming clothing more sufficiently, such as leasing or re-selling platforms, it is interesting that not much is present in Iceland. Last year, the only formal leasing (borrowing) platform opened in Reykjavík, a result of a governmental initiative to reduce textile waste (*Teymið*, n.d.). Furthermore, no phone app is available for Icelandic consumers to sell and buy clothes. The only platforms for individuals to sell their clothes are through various Facebook groups and C2C (consumer to consumer) clothing stores. Therefore, it is interesting to see how highly everyone in the P-set thinks of sharing as important for sufficiency, with the limited options in Iceland. Therefore, if the proper infrastructure was in place, consumers' perceptions might be different. The clothing consumption habits of the participants should also be acknowledged as a variable that might impact the results of this study. The majority of the participants said they most often purchase second-hand or vintage items, while a similar number of participants said they most often

purchase new and cheap clothes. Recruiting participants that mostly buy sustainable brands or high-end designer clothes might have yielded different results.

All participants were opposed to what could be described as the most radical government intervention, a ban on purchasing new clothes. This statement refers to Alexander's (2012) description of a utopian society in which only clothes that have already been made are used, and new clothing is not produced until there is a need for new clothes. When the time came for new clothes in the system, they would be made sustainably. How participants reacted to this statement (st. 40) indicates that we are far from this utopian society. However, the other governmental interventions were not all negatively perceived (st. 43, st. 38, st. 36). These statements related to consumer education, higher taxation, and support for local designers. However, these statements could be considered to represent soft instruments, indicating that society today is not ready for more radical interventions (Schäpke & Rauschmayer, 2014; Spengler, 2018). However, scholars have also argued that radical changes are needed to change the 'business as usual' (Spengler, 2018). This leads the discussion to how long radical interventions should wait?

## 5.2  Reflection on methodology
This section presents the author's reflections on the study process, including methodology choices, legitimacy and generalisability.

### 5.2.1  Methodology and theory
The methodological framework, using Q methodology, allowed for the exploration of consumers' perceptions of the subjective concept of sufficiency. Consumer research offers various methods to study understanding. Therefore, the RQs could have been approached using other methods, such as pure qualitative or pure quantitative methods. A survey could have been utilised, using, for example, Likert scale questions about consumers' understanding and perception of the RQs at hand. Interviews could also have been used. However, using the Q methodology allowed for subjectivity to be analysed and different social perspectives identified.

Q methodology presented an interesting way of exploring consumer perceptions of sufficiency regarding clothing consumption. As I am grateful to have learnt a new method, there are limitations to the study. As this is the first time I have employed the Q methodology, I want to critically point out a few aspects that, in my opinion, could be beneficial for other student researchers using the Q methodology for the first time.

- The saturation of statements was deemed achieved when an additional interview only added two statements to the list of 97 already gathered. However, this depends on the interviewee. If another interviewee had been chosen, they might have something more to say about the subject. However, this can never be fully known. The saturation of statements, therefore, needs to be well addressed.
- The statements were chosen, in part, because of the codes they represented. That, therefore, resulted in an error of such where statements about buying only second-hand clothing or only sustainable brands were chosen instead of if sufficiency entails buying second-hand clothing or sustainable brands. This highlights the importance of statements being framed in a particular manner.
- Not all participants will interpret and read the same salience into every statement (Webler et al., 2009). Additionally, as the Q-sorting is done online and participants are only asked to give feedback on the statements on each end of the spectrum (the ones they most agreed/disagreed with). Explanations of statements in other positions on the grid can be a mystery.

- Fifty statements were chosen for this study, and because of the high number of statements, more columns in a Q grid would have been more appropriate. The narrow Q grid this study utilised could have impacted the study's results as there were fewer columns for participants to sort the statements. This might have affected the strong correlation between the factors. Therefore, additional columns are advised for future research.

This study employed social practice theory to detangle how consumers perceive sufficient clothing consumption. Using SPT allowed for a closer inspection of the three social perspectives identified in this study. While SPT was very helpful during the data collection, where both the interview questions and Q statements were centred around the meaning and competence element of the theory, the analysis of the perspectives with SPT was a challenge. Looking at all activities of sufficient clothing consumption as a single social practice is tricky since the activities related to this consumption mode could all be studied as a single social practice. Further, Q methodology was employed, which could be argued to not dive as deep into participants' perceptions as, for example, interviews would. Therefore, the analysis of the SPT elements was only based on the ranking of statements.

Even though the study has its limitations, it does contribute to enhancing the understanding of consumers' perceptions about sufficient clothing consumption.

### *The issue of translation*
As this study was conducted in Icelandic, translation issues had to be addressed. Firstly, 'sufficiency' is translated here as 'nægjusemi'. However, this word can also be translated to ' being content'. However, to avoid confusion, the translation of the Icelandic word as 'sufficiency' was present at every stage of the Q sorting exercise and discussed during the interviews. Concerning the translation of statements, the translation of 'sharing' to Icelandic is 'deila', and the circular economy in Icelandic is 'deilihagkerfið' or directly translated to 'the sharing economy'. This must be considered when looking at the findings of this study (especially st. 16). The participants might have been thinking about buying second-hand as sharing, since that is a part of the circular economy.

The language used for the statements was gathered from the concourse. However, since only 4 of the 18 participants were part of the interview process, the language used was not based on the whole sample.

## 5.2.2 Legitimacy
The research questions presented were identified through a gap in the literature. However, how consumers perceive sufficient clothing consumption is a significant question, which can be argued to lead to many different answers.

The study's findings have provided an answer to RQ1. However, it could be argued that RQ2 has only answered to a limited degree. The responsibility of numerous actors was posed in the statements, but more detailed statements would be needed to analyse the social perspectives towards those statements accurately. It can further be argued that a separate Q grid and sorting would have been required for each research question. That way, the statements for each question would be ranked only in relation to each other. However, that was not deemed possible because of the timeframe for this study.

## 5.2.3 Generalisability

Q methodology is not designed to generalise across populations since its main focus is to capture individuals' perspectives and group them. It does, therefore, not exclude other possible perceptions or points of view. However, seeing that Iceland is an affluent, Western society, it can be possible that consumers also hold these social perspectives in similar societies. It could, however, be taken with caution since perceptions can change, and Q methodology has been criticised for only providing a 'snapshot' of people's perspectives at the time of the study (Watts & Stenner, 2005).

This study only focused on consumers' perceptions and can therefore not be relevant for other stakeholder groups, such as government, businesses or NGOs.

# 6  Conclusion

Textile waste is a global problem with significant environmental impacts and needs to be addressed. The fast production and consumption of clothes are at the core of this problem, which is why sufficiency should be practised when it comes to clothing consumption. However, the specific problem identified through the literature review revealed that there is limited knowledge of the perceptions and views of consumers when it comes to sufficiency and clothing consumption. This was explored in this thesis by posing the following questions:

RQ1: How do consumers understand and perceive sufficiency in their clothing consumption?

RQ2: How can sufficient clothing consumption be encouraged according to consumers?

The answers to both of these questions were obtained through Q methodology, which is characterised as a mixed-method approach. Statements were gathered from literature, four interviews with consumers, and sources such as blogs and YouTube videos. 18 participants provided their unique ranking of the statements, resulting in three social perspectives.

The first social perspective, called *Quality seekers for sufficiency,* is characterized by thinking that the ability to buy quality and durable clothing drives sufficiency. They further think that consumers are partly responsible for their consumption and therefore need to step up and change their behaviour. Related to consumer responsibility, *Quality seekers for sufficiency*, in addition, believe that sufficiency means not owning too many clothes, suggesting that sufficient consumption is restrained up to a point. They furthermore favour a relatedly high level of governmental interventions, such as higher taxation for clothing produced under questionable conditions.

The second social perspective, *The vicious cycle consumers*, are consumers that feel like they are well aware of the impacts their clothing consumption has but feel like they do not have the tools to reduce their consumption. For them, both the high price of quality clothing and the low price of fast fashion are barriers to sufficient consumption. They purchase clothing to make themselves feel better and find it difficult to realise what is 'enough' of clothes and doubt they will never achieve that level of 'enough'. Additionally, unless they are informative campaigns or support programs for local designers, this social perspective does not favour government involvement. Therefore, the representatives of this perspective acknowledge that they have a problem with clothing consumption but do not think radical changes are needed or beneficial.

The third social perspective, *Sufficiency as a state of mind*, is similar to the first but differs in that it emphasizes the need to apply sufficiency to other parts of life, such as family and friends. Furthermore, the participants identifying with this perspective believed that radical governmental interventions are needed to change consumption behaviour.

Finally, the study identified a relatively high consensus, where participants agreed on numerous statements. Almost everyone that took part in the study believes that sufficient clothing consumption is centred around using the clothes you have and sharing clothes. Sufficiency is also thought about being about a certain quantity of clothes. The governmental intervention that all social perspectives believe is needed to enhance sufficient clothing consumption is in the form of consumer education. Furthermore, it is clear that the participants do not think that giving clothes to charity will enhance sufficient clothing consumption.

Concerning RQ2, as pointed out above, there are different views on encouragement from the governmental level. However, in relation to encouragement from businesses, the consensus was

that clothing companies should be encouraging sufficient clothing consumption. The findings further show that consumers feel that sufficiency promotions or marketing are trustworthy.

## 6.1 Practical implications and recommendations for non-academic audiences

The non-academic audience was identified as policymakers as well as clothing companies. For policymakers, the study results provide insight into how consumers will accept various governmental interventions and how ready society is for radical interventions to change consumer behaviour. However, this study only included a limited number of governmental interventions, as per the stated concourse. Both the different social perspectives and the consensus are important information for policymakers, as this initial mapping allows for the identification of consumers that accept interventions differently. The consensus statements allow for an overview of what all of the participants agreed to at this point in time. Therefore, the study provides topics where governmental interventions will be highly favoured, such as increased consumer education and support for local designers.

For clothing companies, the results further confirm that engaging in sufficiency activities and encouraging consumers to practice sufficiency will not make consumers lose trust in the company. However, companies need to let actions follow words and not be caught greenwashing for sufficiency. This study did not include details about how sufficiency encouragement should be framed, for increased consumer trustworthiness, this would have to be studied further.

## 6.2 Recommendations for future research

This study contributes to the exciting literature field of sufficiency, focusing on consumer perceptions, which has not been done before. It also contributes to the literature on analysing sufficient consumption with social practice theory. The three social perspectives and the consensus identified allow for an insight into how consumers understand sufficient consumption and provide a starting point for future research on consumer perception of sufficiency.

However, since studies exploring sufficient clothing consumption are scarce, recommendations for future research will now be made:

- Using SPT, a qualitative study might explore the practice of sufficient clothing consumption by interviewing consumers that believe they practice sufficiency in their clothing consumption. That would allow for a deeper exploration of the different meanings, competencies and materials associated with sufficiency.
- Similarly, research focusing on consumers that do not consume clothing sufficiently can give insights into the unsustainable consumption behaviour of clothing consumption. Here, SPT would also be beneficial where the theory's elements could be identified and potential points for intervention.
- Research that dives deeper into policies or governmental interventions to enhance sufficient clothing consumption might give a more accurate picture of the available interventions and what is realistic in a specific geographical context.
- Even if consumers recognize the impact of their clothing consumption, it is clear that knowledge is not enough. Research could explore how to bridge this gap concerning clothing consumption.
- It is clear that the infrastructure to take part in the circular clothing economy in Iceland is limited. Research could explore how much adequate infrastructure impacts clothing sufficiency levels.

- Furthermore, research could benefit from diving deeper into one element of SPT at a time, for example, materials. This study identified people's wardrobes as a material, even though it is an abstract idea; future research could focus on how different wardrobes impact clothing consumption. Do consumers buy less when their wardrobe displays the clothes in a particular manner, or does this not impact consumption levels? Do walk-in closets lower consumption levels because all clothes are on clear display, or does this lead to increased consumption to fill the closet?

# Bibliography

Alcott, B. (2008). The sufficiency strategy: Would rich-world frugality lower environmental impact? *Ecological Economics*, *64*(4), 770–786. https://doi.org/10.1016/j.ecolecon.2007.04.015

Alcott, B. (2018). Environmental Caps as a Solution to Rebound Effects. In L. Rijnhout & R. Mastini (Eds.), *Sufficiency. Moving beyond the gospel of eco-efficiency* (pp. 9–13). Friends of Earth Europe. https://friendsoftheearth.eu/publication/sufficiency-moving-beyond-the-gospel-of-eco-efficiency/

Alexander, S. (2012). *The Sufficiency Economy: Envisioning a Prosperous Way Down* (No. 12). Simplicity Institute. https://simplicityinstitute.org/wp-content/uploads/2011/04/TheSufficiencyEconomy3.pdf

Alfredsson, E., Bengtsson, M., Brown, H. S., Isenhour, C., Lorek, S., Stevis, D., & Vergragt, P. (2018). Why achieving the Paris Agreement requires reduced overall consumption and production. *Sustainability: Science, Practice and Policy*, *14*(1), 1–5. https://doi.org/10.1080/15487733.2018.1458815

Armstrong Soule, C. A., & Reich, B. J. (2015). Less is more: Is a green demarketing strategy sustainable? *Journal of Marketing Management*, *31*(13–14), 1403–1427. https://doi.org/10.1080/0267257X.2015.1059874

Arna Petra. (2022, March 21). *HELGARVLOG!!!* https://www.youtube.com/watch?v=Vv3bTjFFdEc

Backaler, J. (2018). Know the Risks: The Dark Side of Influencer Collaboration. In J. Backaler (Ed.), *Digital Influence: Unleash the Power of Influencer Marketing to Accelerate Your Global Business* (pp. 137–154). Springer International Publishing. https://doi.org/10.1007/978-3-319-78396-3_10

Bain, J. (2016). "Darn right I'm a feminist…Sew what?" the politics of contemporary home dressmaking: Sewing, slow fashion and feminism. *Women's Studies International Forum*, *54*, 57–66. https://doi.org/10.1016/j.wsif.2015.11.001

Banasick, S. (2019). KADE: A desktop application for Q methodology. *Journal of Open Source Software*, *4*, 1360. https://doi.org/10.21105/joss.01360

Barry, J., & Proops, J. (1999). Seeking sustainability discourses with Q methodology. *Ecological Economics*, *28*(3), 337–345. https://doi.org/10.1016/S0921-8009(98)00053-6

Bick, R., Halsey, E., & Ekenga, C. C. (2018). The global environmental injustice of fast fashion. *Environmental Health*, *17*(1), 1–4. https://doi.org/10.1186/s12940-018-0433-7

Bjørn, A., Kalbar, P., Nygaard, S. E., Kabins, S., Jensen, C. L., Birkved, M., Schmidt, J., & Hauschild, M. Z. (2018). Pursuing necessary reductions in embedded GHG emissions of developed nations: Will efficiency improvements and changes in consumption get us there? *Global Environmental Change*, *52*, 314–324. https://doi.org/10.1016/j.gloenvcha.2018.08.001

Bocken, N. M. P., & Short, S. W. (2016). Towards a sufficiency-driven business model: Experiences and opportunities. *Environmental Innovation and Societal Transitions*, *18*, 41–61. https://doi.org/10.1016/j.eist.2015.07.010

Brand, K.-W. (2010). Social Practices and Sustainable Consumption: Benefits and Limitations of a New Theoretical Approach. In M. Gross & H. Heinrichs (Eds.), *Environmental Sociology: European Perspectives and Interdisciplinary Challenges* (pp. 217–235). Springer Netherlands. https://doi.org/10.1007/978-90-481-8730-0_13

Brooks, A. (2015). *Clothing Poverty: The Hidden World of Fast Fashion and Second-hand Clothes*. Zed Books Ltd. https://doi.org/10.13140/RG.2.1.3268.0161

Brown, S. R. (1980). *Political Subjectivity: Applications of Q Methodology in Political Science*.

Brown, S. R. (1986). Q technique and method: Principles and procedures. In W. D. Berry & M. S. Lewis-Beck (Eds.), *New tools for social scientists: Advances and applications in research methods*. SAGE.

Brown, S. R. (1993). A Primer on Q Methodology. *Operant Subjectivity*, *16*. https://www.researchgate.net/publication/244998835_A_Primer_on_Q_Methodology

Burton, K. (2018). Reducing textile waste in the apparel industry: Examining EPR as an option. *Clothing Cultures*, *5*(1), 33–45. https://doi.org/10.1386/cc.5.1.33_1

Callmer, Å. (2019). *Making sense of sufficiency: Entries, practices and politics* [Doctoral thesis, KTH Royal Institue of Technology]. http://urn.kb.se/resolve?urn=urn:nbn:se:kth:diva-265582

Carpenter, J., Moore, M., Doherty, A. M., & Alexander, N. (2012). Acculturation to the global consumer culture: A generational cohort comparison. *Journal of Strategic Marketing*, *20*(5), 411–423. https://doi.org/10.1080/0965254X.2012.671340

Claudio, L. (2007). Waste Couture: Environmental Impact of the Clothing Industry. *Environmental Health Perspectives*, *115*(9), A449–A454. https://doi.org/10.1289/ehp.115-a449

Connell, K. Y. H. (2010). Internal and external barriers to eco-conscious apparel acquisition. *International Journal of Consumer Studies*, *34*(3), 279–286. https://doi.org/10.1111/j.1470-6431.2010.00865.x

Corvellec, H., & Stål, H. I. (2017). Evidencing the waste effect of Product-Service Systems (PSSs). *Journal of Cleaner Production*, *145*, 14–24. https://doi.org/10.1016/j.jclepro.2017.01.033

Creswell, J. W., & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (5th ed.). SAGE.

Dahlman, E., & Merkler, S. (2020). *'Helping our consumers buy less, but choose well': An exploratory study on how sustainable fashion brands market themselves* [Jönköping University]. http://urn.kb.se/resolve?urn=urn:nbn:se:hj:diva-51237

Diddi, S., Yan, R.-N., Bloodhart, B., Bajtelsmit, V., & McShane, K. (2019). Exploring young adult consumers' sustainable clothing consumption intention-behavior gap: A Behavioral Reasoning Theory perspective. *Sustainable Production and Consumption*, *18*, 200–209. https://doi.org/10.1016/j.spc.2019.02.009

Eden, S., Bear, C., & Walker, G. (2008). The sceptical consumer? Exploring views about food assurance. *Food Policy*, *33*(6), 624–630. https://doi.org/10.1016/j.foodpol.2008.02.003

Ellen MacArthur Foundation. (2017). *A New Textiles Economy: Redesigning fashion's future*. https://ellenmacarthurfoundation.org/a-new-textiles-economy

Ellis, G., Barry, J., & Robinson, C. (2007). Many ways to say 'no', different ways to say 'yes': Applying Q-Methodology to understand public acceptance of wind farm proposals. *Journal of Environmental Planning and Management*, *50*(4), 517–551. https://doi.org/10.1080/09640560701402075

European Environment Agency. (2019). *Textiles and the environment in a circular economy*. https://www.eionet.europa.eu/etcs/etc-wmge/products/etc-reports/textiles-and-the-environment-in-a-circular-economy

Figge, F., Young, W., & Barkemeyer, R. (2014). Sufficiency or efficiency to achieve lower resource consumption and emissions? The role of the rebound effect. *Journal of Cleaner Production*, *69*, 216–224. https://doi.org/10.1016/j.jclepro.2014.01.031

Fletcher, K. (2008). *Sustainable Fashion & Textiles*. Earthscan.

Fletcher, K. (2010). Slow Fashion: An Invitation for Systems Change. *Fashion Practice*, *2*(2), 259–265. https://doi.org/10.2752/175693810X12774625387594

Frankfurt, H. (1987). Equality as a Moral Ideal. *Ethics*, *98*(1), 21–43. https://doi.org/10.1086/292913

Freudenreich, B., & Schaltegger, S. (2020). Developing sufficiency-oriented offerings for clothing users: Business approaches to support consumption reduction. *Journal of Cleaner Production*, *247*, 119589. https://doi.org/10.1016/j.jclepro.2019.119589

Frick, V., Gossen, M., Santarius, T., & Geiger, S. (2021). When your shop says #lessismore. Online communication interventions for clothing sufficiency. *Journal of Environmental Psychology*, *75*, 101595. https://doi.org/10.1016/j.jenvp.2021.101595

Göpel, M. (2016). *The Great Mindshift: How a New Economic Paradigm and Sustainability Transformations go Hand in Hand.* (Vol. 2). Springer. https://library.oapen.org/bitstream/handle/20.500.12657/27799/1002206.pdf;jsessionid=7435158576B80DC84E36AC6C1FF4293B?sequence=1

Gorge, H., Herbert, M., Özçağlar-Toulouse, N., & Robert, I. (2015). What Do We Really Need? Questioning Consumption Through Sufficiency. *Journal of Macromarketing*, *35*(1), 11–22. https://doi.org/10.1177/0276146714553935

Gossen, M., & Heinrich, A. (2021). Encouraging consumption reduction: Findings of a qualitative study with clothing companies on sufficiency-promoting communication. *Cleaner and Responsible Consumption*, *3*, 100028. https://doi.org/10.1016/j.clrc.2021.100028

Gossen, M., & Kropfeld, M. I. (2022). "Choose nature. Buy less." Exploring sufficiency-oriented marketing and consumption practices in the outdoor industry. *Sustainable Production and Consumption*, *30*, 720–736. Scopus. https://doi.org/10.1016/j.spc.2022.01.005

Gossen, M., Ziesemer, F., & Schrader, U. (2019). Why and How Commercial Marketing Should Promote Sufficient Consumption: A Systematic Literature Review. *Journal of Macromarketing*, *39*(3), 252–269. https://doi.org/10.1177/0276146719866238

Gwozdz, W., Steensen Nielsen, K., & Müller, T. (2017). An Environmental Perspective on Clothing Consumption: Consumer Segments and Their Behavioral Patterns. *Sustainability*, *9*(5), 762. https://doi.org/10.3390/su9050762

Harris, F., Roby, H., & Dibb, S. (2016). Sustainable clothing: Challenges, barriers and interventions for encouraging more sustainable consumer behaviour. *International Journal of Consumer Studies*, *40*(3), 309–318. https://doi.org/10.1111/ijcs.12257

Hassan, L. M., Shiu, E., & Shaw, D. (2016). Who Says There is an Intention–Behaviour Gap? Assessing the Empirical Evidence of an Intention–Behaviour Gap in Ethical Consumption. *Journal of Business Ethics*, *136*(2), 219–236. https://doi.org/10.1007/s10551-014-2440-0

Heikkurinen, P., Young, C. W., & Morgan, E. (2019). Business for sustainable change: Extending eco-efficiency and eco-sufficiency strategies to consumers. *Journal of Cleaner Production*, *218*, 656–664. https://doi.org/10.1016/j.jclepro.2019.02.053

Heindl, P., & Kanschik, P. (2016). Ecological sufficiency, individual liberties, and distributive justice: Implications for policy making. *Ecological Economics*, *126*, 42–50. https://doi.org/10.1016/j.ecolecon.2016.03.019

Heiskanen, E., & Laakso, S. (2019). Editing out unsustainability from consumption: From information provision to nudging and social practice theory. In O. Mont (Ed.), *A Research Agenda for Sustainable Consumption Governance* (pp. 156–171). Edward Elgar. https://doi.org/10.4337/9781788117814.00020

Hill, J., & Lee, H. (2012). Young Generation Y consumers' perceptions of sustainability in the apparel industry. *Journal of Fashion Marketing and Management: An International Journal*, *16*(4), 477–491. https://doi.org/10.1108/13612021211265863

Hwang, C., Lee, Y., Diddi, S., & Karpova, E. (2016). "Don't buy this jacket": Consumer reaction toward anti-consumption apparel advertisement. *Journal of Fashion Marketing and Management: An International Journal*, *20*(4), 435–452. https://doi.org/10.1108/JFMM-12-2014-0087

IPCC. (2021). *Summary for Policymakers. In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.* https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM_final.pdf

Isenhour, C. (2010). On Conflicted Swedish Consumers, the Effort to "Stop Shopping" and Neoliberal Environmental Governance. *Journal of Consumer Behaviour*, *9*, 454–469. https://doi.org/10.1002/cb.336

Ivankova, N. V., Creswell, J. W., & Stick, S. L. (2006). Using Mixed-Methods Sequential Explanatory Design: From Theory to Practice. *Field Methods*, *18*(1), 3–20. https://doi.org/10.1177/1525822X05282260

Jackson, T. (2016). *Prosperity without Growth | Foundations for the Economy of Tomorrow |* (2nd ed.). Routledge. https://www.taylorfrancis.com/books/mono/10.4324/9781315677453/prosperity-without-growth-tim-jackson

Jacobs, K., Petersen, L., Hörisch, J., & Battenfeld, D. (2018). Green thinking but thoughtless buying? An empirical extension of the value-attitude-behaviour hierarchy in sustainable clothing. *Journal of Cleaner Production*, *203*, 1155–1169. https://doi.org/10.1016/j.jclepro.2018.07.320

Jóakimsdóttir, J. (2018). *Fatasóun—Hvað getur þú gert?* Leiðbeiningastöð Heimilanna. https://www.leidbeiningastod.is/leidbeiningar-og-rad/item/fatas%C3%B3un

Joanes, T. (2019). *Sufficiency for Sustainability: Determinants and Strategies for Reducing Clothing Consumption* [Copenhagen Business School [Phd]]. https://research.cbs.dk/en/publications/sufficiency-for-sustainability-determinants-and-strategies-for-re

Jónasdóttir, B. D. (2021, May 22). Kon‑‑ur sjá frek‑ar um fat‑a‑‑kaup á heim‑‑il‑‑in‑‑u. *Fréttablaðið*. https://www.frettabladid.is/frettir/konur-sja-frekar-um-fatakaup-a-heimilinu/

Joshi, Y., & Rahman, Z. (2015). Factors Affecting Green Purchase Behaviour and Future Research Directions. *International Strategic Management Review*, *3*(1), 128–143. https://doi.org/10.1016/j.ism.2015.04.001

Joyner Armstrong, C. M., Connell, K. Y. H., Lang, C., Ruppert-Stroescu, M., & LeHew, M. L. A. (2016). Educating for Sustainable Fashion: Using Clothing Acquisition Abstinence to Explore Sustainable Consumption and Life Beyond Growth. *Journal of Consumer Policy*, *39*(4), 417–439. https://doi.org/10.1007/s10603-016-9330-z

Jungell-Michelsson, J., & Heikkurinen, P. (2022). Sufficiency: A systematic literature review. *Ecological Economics*, *195*, 107380. https://doi.org/10.1016/j.ecolecon.2022.107380

Kim, I., Jung, H., & Lee, Y. (2021). Consumers' Value and Risk Perceptions of Circular Fashion: Comparison between Secondhand, Upcycled, and Recycled Clothing. *Sustainability*, *13*, 1208. https://doi.org/10.3390/su13031208

Kim, S., Ko, E., & Kim, S. J. (2018). Fashion brand green demarketing: Effects on customer attitudes and behavior intentions. *Journal of Global Fashion Marketing*, *9*(4), 364–378. https://doi.org/10.1080/20932685.2018.1503557

Kleinhückelkotten, S., & Neitzke, H.-P. (2019). Social Acceptability of More Sustainable Alternatives in Clothing Consumption. *Sustainability*, *11*(22), 6194. https://doi.org/10.3390/su11226194

Kropfeld, M. (2019). *A Practice-Theoretical Framework for Sufficiency-based Lifestyles* (J. Segalàs & B. Lazzarini, Eds.; pp. 110–125).

Kropfeld, M., & Reichel, A. (2021). The Business Model of Enough: Value Creation for Sufficiency-Oriented Businesses. In *Business Models for Sustainability Transitions* (pp. 163–189). https://doi.org/10.1007/978-3-030-77580-3_6

Leavy, P. (2017). *Research Design: Quantitative, Qualitative, Mixed Methods, Arts-Based, and CommunityBased Participatory Research Approaches*. Guilford Press.

Licsandru, T. C., & Cui, C. C. (2019). Ethnic marketing to the global millennial consumers: Challenges and opportunities. *Journal of Business Research*, *103*, 261–274. https://doi.org/10.1016/j.jbusres.2019.01.052

Lorek, S. (2018). Sufficiency in sustainable lifestyles. In L. Rijnhout & R. Mastini (Eds.), *Sufficiency. Moving beyond the gospel of eco-efficiency* (pp. 26–29). Friends of Earth Europe. DOI: 10.13140/RG.2.2.15070.87369

Lorek, S., & Fuchs, D. (2013). Strong sustainable consumption governance – precondition for a degrowth path? *Journal of Cleaner Production*, *38*, 36–43. https://doi.org/10.1016/j.jclepro.2011.08.008

Lorek, S., & Fuchs, D. (2019). Why only strong sustainable consumption governance will make a difference. In O. Mont (Ed.), *A Research Agenda for Sustainable Consumption Governance*. Edward Elgar Publishing. http://www.elgaronline.com/view/edcoll/9781788117807/9781788117807.00010.xml

Lorek, S., & Spangenberg, J. H. (2014). Sustainable consumption within a sustainable economy – beyond green growth and green economies. *Journal of Cleaner Production*, *63*, 33–44. https://doi.org/10.1016/j.jclepro.2013.08.045

Lorek, S., & Spangenberg, J. H. (2019). Energy sufficiency through social innovation in housing. *Energy Policy*, *126*, 287–294. https://doi.org/10.1016/j.enpol.2018.11.026

Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, *50*(4), 370–396. https://doi.org/10.1037/h0054346

Mastini, R., & Rijnhout, L. (2018). Ideas for sufficiency. In L. Rijnhout & R. Mastini (Eds.), *Sufficiency: Moving Beyond the Gospel of Eco-Efficiency (Report by Friends of the Earth Europe)* (pp. 34–45). Friends of Earth Europe. DOI: 10.13140/RG.2.2.15070.87369

Mazur, K. E., & Asah, S. T. (2013). Clarifying standpoints in the gray wolf recovery conflict: Procuring management and policy forethought. *Biological Conservation*, *167*, 79–89. https://doi.org/10.1016/j.biocon.2013.07.017

McKeown, B., & Thomas, D. B. (2013). *Q Methodology* (2nd ed.). SAGE.

Niinimäki, K., Peters, G., Dahlbo, H., Perry, P., Rissanen, T., & Gwilt, A. (2020). The environmental price of fast fashion. *Nature Reviews Earth & Environment*, *1*(4), 189–200. https://doi.org/10.1038/s43017-020-0039-9

Nikraftar, T., & Jafarpour, E. (2021). Using Q-methodology for analyzing divergent perspectives about sustainable tourism. *Environment, Development and Sustainability*, *23*(4), 5904–5919. https://doi.org/10.1007/s10668-020-00852-5

O'Neill, D. W., Fanning, A. L., Lamb, W. F., & Steinberger, J. K. (2018). A good life for all within planetary boundaries. *Nature Sustainability*, *1*(2), 88–95. https://doi.org/10.1038/s41893-018-0021-4

Persson, O., & Klintman, M. (2021). Framing sufficiency: Strategies of environmental non-governmental organisations towards reduced material consumption. *Journal of Consumer Culture*, 1469540521990857. https://doi.org/10.1177/1469540521990857

Peters, G. M., Sandin, G., & Spak, B. (2019). Environmental Prospects for Mixed Textile Recycling in Sweden. *ACS Sustainable Chemistry & Engineering*, *7*(13), 11682–11690. https://doi.org/10.1021/acssuschemeng.9b01742

Pookulangara, S., & Shephard, A. (2013). Slow fashion movement: Understanding consumer perceptions—An exploratory study. *Journal of Retailing and Consumer Services*, *20*(2), 200–206. https://doi.org/10.1016/j.jretconser.2012.12.002

Price, J. L., & Joseph, J. B. (2000). Demand management – a basis for waste policy: A critical review of the applicability of the waste hierarchy in terms of achieving sustainable waste management. *Sustainable Development*, *8*(2), 96–105. https://doi.org/10.1002/(SICI)1099-1719(200005)8:2<96::AID-SD133>3.0.CO;2-J

Princen, T. (1999). Consumption and environment: Some conceptual issues. *Ecological Economics*, *31*(3), 347–363. https://doi.org/10.1016/S0921-8009(99)00039-7

Princen, T. (2005). *The Logic of Sufficiency*. MIT Press.

Pruneddu, A. (2016). *Q-sorTouch*. www.qsortouch.com

Ramirez, E., Tajdini, S., & David, M. E. (2017). The Effects of Proenvironmental Demarketing on Consumer Attitudes and Actual Consumption. *Journal of Marketing Theory and Practice*, *25*(3), 291–304. http://dx.doi.org/10.1080/10696679.2017.1311219

Reckwitz, A. (2002). Toward a Theory of Social Practices: A Development in Culturalist Theorizing. *European Journal of Social Theory*, *5*(2), 243–263. https://doi.org/10.1177/13684310222225432

Reich, B. J., & Soule, C. A. A. (2016). Green Demarketing in Advertisements: Comparing "Buy Green" and "Buy Less" Appeals in Product and Institutional Advertising Contexts. *Journal of Advertising*, *45*(4), 441–458. https://doi.org/10.1080/00913367.2016.1214649

Revilla, B. P., & Salet, W. (2018). The social meaning and function of household food rituals in preventing food waste. *Journal of Cleaner Production*, *198*, 320–332. https://doi.org/10.1016/j.jclepro.2018.06.038

Røpke, I. (2009). Theories of practice—New inspiration for ecological economic studies on consumption. *Ecological Economics*, *68*(10), 2490–2497. https://doi.org/10.1016/j.ecolecon.2009.05.015

Sahakian, M., & Wilhite, H. (2014). Making practice theory practicable: Towards more sustainable forms of consumption. *Journal of Consumer Culture*, *14*(1), 25–44. https://doi.org/10.1177/1469540513505607

Sandberg, M. (2021). Sufficiency transitions: A review of consumption changes for environmental sustainability. *Journal of Cleaner Production*, *293*, 126097. https://doi.org/10.1016/j.jclepro.2021.126097

Schäpke, N., & Rauschmayer, F. (2014). Going beyond efficiency: Including altruistic motives in behavioral models for sustainability transitions to address sufficiency. *Sustainability: Science, Practice and Policy*, *10*(1), 29–44. https://doi.org/10.1080/15487733.2014.11908123

Schneidewind, U., & Zahrnt, A. (2014). *The politics of sufficiency: Making it easier to live the good life*. Oekom. https://epub.wupperinst.org/frontdoor/deliver/index/docId/5550/file/5550_Schneidewind.pdf

Shove, E., & Pantzar, M. (2005). Consumers, Producers and Practices: Understanding the invention and reinvention of Nordic walking. *Journal of Consumer Culture*, *5*(1), 43–64. https://doi.org/10.1177/1469540505049846

Shove, E., Pantzar, M., & Watson, M. (2012). *The Dynamics of Social Practice: Everyday Life and How it Changes*. SAGE Publications Ltd. https://doi.org/10.4135/9781446250655

Smith, K. T., & Brower, T. R. (2012). Longitudinal study of green marketing strategies that influence Millennials. *Journal of Strategic Marketing*, *20*(6), 535–551. https://doi.org/10.1080/0965254X.2012.711345

Sneegas, G., Beckner, S., Brannstrom, C., Jepson, W., Lee, K., & Seghezzo, L. (2021). Using Q-methodology in environmental sustainability research: A bibliometric analysis and systematic review. *Ecological Economics*, *180*, 106864. https://doi.org/10.1016/j.ecolecon.2020.106864

Song, S., & Ko, E. (2017). Perceptions, attitudes, and behaviors toward sustainable fashion: Application of Q and Q-R methodologies. *International Journal of Consumer Studies*, *41*(3), 264–273. https://doi.org/10.1111/ijcs.12335

Sorensen, K., & Jorgensen, J. J. (2019). Millennial perceptions of fast fashion and second-hand clothing: An exploration of clothing preferences using Q methodology. *Social Sciences*, *8*(9). Scopus. https://doi.org/10.3390/socsci8090244

Spangenberg, J. (2018). Sufficiency: A Pragmatic, Radical Visionary Approach. In L. Rijnhout & R. Mastini (Eds.), *Sufficiency: Moving Beyond the Gospel of Eco-Efficiency (Report by Friends of the Earth Europe)* (pp. 5–8). Friends of Earth Europe. https://doi.org/10.13140/RG.2.2.15070.87369

Spangenberg, J. H., & Lorek, S. (2019). Sufficiency and consumer behaviour: From theory to policy. *Energy Policy*, *129*, 1070–1079. https://doi.org/10.1016/j.enpol.2019.03.013

Speck, M., & Hasselkuss, M. (2015). Sufficiency in social practice: Searching potentials for sufficient behavior in a consumerist culture. *Sustainability: Science, Practice and Policy*, *11*(2), 14–32. https://doi.org/10.1080/15487733.2015.11908143

Spengler, L. (2016). Two types of 'enough': Sufficiency as minimum and maximum. *Environmental Politics*, *25*(5), 921–940. https://doi.org/10.1080/09644016.2016.1164355

Spengler, L. (2018). *Sufficiency as Policy. Necessity, Possibilities and Limitations*. Nomos.

Statistics Iceland. (2018). *GDP in Iceland 30% above the EU28 average*. Statistics Iceland. http://hagstofa.is/en/publications/news-archive/prices/volume-of-gdp-and-actual-individual-consumption-per-capita-in-european-countries-2017/

Steffen, W., Richardson, K., Rockström, J., Cornell, S. E., Fetzer, I., Bennett, E. M., Biggs, R., Carpenter, S. R., de Vries, W., de Wit, C. A., Folke, C., Gerten, D., Heinke, J., Mace, G. M., Persson, L. M., Ramanathan, V., Reyers, B., & Sörlin, S. (2015). Planetary boundaries: Guiding human development on a changing planet. *Science*, *347*(6223), 1259855. https://doi.org/10.1126/science.1259855

Stenner, P., & Stainton Rogers, R. (2004). Q methodology and qualiquantology: The example of discriminating between emotions. *Mixing Methods in Psychology*, 101–120.

Stephenson, W. (1953). *The Study of Behavior: Q Technique and Its Methodology*. The University of Chicago Press.

*Textíll*. (n.d.). Saman gegn sóun. Retrieved 21 March 2022, from https://samangegnsoun.is/textill/

*Teymið*. (n.d.). Spjara. Retrieved 2 May 2022, from https://spjara.is/pages/teymid

UN Environment. (2019, March 14). *UN Alliance For Sustainable Fashion addresses damage of 'fast fashion'*. UN Environment. http://www.unep.org/news-and-stories/press-release/un-alliance-sustainable-fashion-addresses-damage-fast-fashion

United Nations. (2015). *Goal 12 | Ensure sustainable consumption and production patterns*. United Nations. https://sdgs.un.org/goals/goal12

Van Exel, J., & de Graaf, G. (2005). *Q Methodology: A Sneak Preview*. https://www.researchgate.net/profile/Gjalt-Graaf/publication/228574836_Q_Methodology_A_Sneak_Preview/links/02bfe50f946fc9978b000000/Q-Methodology-A-Sneak-Preview.pdf

Vilhjálmsdóttir, Á. (2020). *Neysla*. Textílmennt & Sjálfbærni. http://www.gerasjalfur.is/neysla.html

Vita, G., Lundström, J. R., Hertwich, E. G., Quist, J., Ivanova, D., Stadler, K., & Wood, R. (2019). The Environmental Impact of Green Consumption and Sufficiency Lifestyles Scenarios in Europe: Connecting Local Sustainability Visions to Global Consequences. *Ecological Economics*, *164*, 106322. https://doi.org/10.1016/j.ecolecon.2019.05.002

Warde, A. (2005). Consumption and Theories of Practice. *Journal of Consumer Culture*, *5*(2), 131–153. https://doi.org/10.1177/1469540505053090

Watts, S., & Stenner, P. (2005). The subjective experience of partnership love: A Q Methodological study. *The British Journal of Social Psychology*, *44*(Pt 1), 85–107. https://doi.org/10.1348/014466604X23473

Watts, S., & Stenner, P. (2012). *Doing Q Methodological Research: Theory, Method and Interpretation*. SAGE Publications Ltd. https://doi.org/10.4135/9781446251911

WCED. (1987). *Our common future*. Oxford University Press.

Webler, T., Danielson, S., & Tuler, S. (2009). *Using Q Method to Reveal Social Perspectives in Environmental Research*. Social and Environmental Research Institute. https://www.researchgate.net/publication/273697977_Using_Q_Method_to_Reveal_Social_Perspectives_in_E nvironmental_Research

Wiederhold, M., & Martinez, L. F. (2018). Ethical consumer behaviour in Germany: The attitude-behaviour gap in the green apparel industry. *International Journal of Consumer Studies*, *42*(4), 419–429. https://doi.org/10.1111/ijcs.12435

Wiedmann, T., Lenzen, M., Keyßer, L. T., & Steinberger, J. K. (2020). Scientists' warning on affluence. *Nature Communications*, *11*(1), 3107. https://doi.org/10.1038/s41467-020-16941-y

Young, W., & Tilley, F. (2006). Can businesses move beyond efficiency? The shift toward effectiveness and equity in the corporate sustainability debate. *Business Strategy and the Environment*, *15*(6), 402–415. https://doi.org/10.1002/bse.510

# I.    Appendix – Inventory of keywords for Literature Review

*Table I-1: Key-words used for searching for literature*

| Search string | Total publications on Scopus |
|---|---|
| ( TITLE-ABS-KEY ( consumer ) AND TITLE-ABS-KEY ( sufficiency ) ) | 673 |
| ( TITLE-ABS-KEY ( consumer ) AND TITLE-ABS-KEY ( sufficiency ) AND TITLE-ABS-KEY ( cloth* OR apparel OR fashion ) ) | 16 |
| ( TITLE-ABS-KEY ( consumer ) AND TITLE-ABS-KEY ( sufficiency ) AND ALL ( cloth* OR apparel OR fashion ) ) | 34 |
| ( TITLE-ABS-KEY ( sufficiency ) AND TITLE-ABS-KEY ( consumer* ) AND TITLE-ABS-KEY ( cloth* OR apparel OR fashion ) ) | 16 |
| ( TITLE-ABS-KEY ( consumer* ) AND TITLE-ABS-KEY ( view OR perception OR understanding ) AND TITLE-ABS-KEY ( sufficiency ) ) | 110 |
| TITLE-ABS-KEY ( "strong sustainable consumption" ) | 18 |
| ( TITLE-ABS-KEY ( perception OR view AND sustainability OR sufficiency ) AND TITLE-ABS-KEY ( consumers ) AND TITLE-ABS-KEY ( cloth* OR fashion OR apparel ) ) | 135 |
| ( TITLE-ABS-KEY ( sufficiency ) AND TITLE-ABS-KEY ( consumer* ) AND TITLE-ABS-KEY ( perception OR view ) ) | 67 |
| ( TITLE-ABS-KEY ( fashion OR cloth* OR apparel ) AND TITLE-ABS-KEY ( sufficiency ) AND TITLE-ABS-KEY ( communication OR marketing ) ) | 17 |
| ( TITLE-ABS-KEY ( fashion OR cloth* OR apparel ) AND TITLE-ABS-KEY ( sufficien* ) AND TITLE-ABS-KEY ( encourag* ) ) AND ( LIMIT-TO ( SUBJAREA , "SOCI" ) OR LIMIT-TO ( SUBJAREA , "ENVI" ) )[4] | 20 |
| ( TITLE-ABS-KEY ( consumer ) AND ALL ( "q methodology" ) AND ALL ( cloth* OR apparel OR fashion ) ) | 21 |
| ( TITLE-ABS-KEY ( "q methodology" ) AND TITLE-ABS-KEY ( sustainability ) ) | 106 |
| ( TITLE-ABS-KEY ( "q methodology" OR "Q method" ) AND TITLE-ABS-KEY ( consumer ) ) | 82 |
| ( ALL ( "q methodology" ) AND TITLE-ABS-KEY ( consumer* ) ) | 232 |
| ( TITLE-ABS-KEY ( "social practice theory") AND TITLE-ABS-KEY ( consumption ) ) | 369 |
| ( TITLE-ABS-KEY ( "social practice theory" OR "SPT" ) AND TITLE-ABS-KEY ( sufficien* ) ) AND ( LIMIT-TO ( SUBJAREA , "EART" ) OR LIMIT-TO ( SUBJAREA , "ENVI" ) ) | 49 |

*Source: Author's elaboration*

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[4] When searching for 'sufficien*', the majority of articles were not necessarily addressing 'sufficiency' but rather mentioning that something was nother 'researched sufficiently', or something along those lines

# II.    Appendix – Interview Guide

Interview guide:

- Introduce my study and clearly disclose the purpose of the interview
- EMP + interest in fashion
- Ask to record
- Clearly disclose the anonymity of my interviewees
- Explain that this is not a formal interview, but rather a discussion about clothing consumption and sufficiency

Defining sufficiency

1. What does sufficiency in general mean to you?
2. What about sufficiency when it comes to clothing?
3. What hinders you from consuming clothes sufficiently?
4. How can consumers consume clothes more sufficiently?
   a. If discussion turns to the idea of enough → what do you feel like is enough when it comes to clothing?

Discuss different parts that have been associated with sufficiency:
1. Second-hand
2. Recycling
3. Repairing
4. Buying less
5. Refraining/not buying clothes
6. Buying less new clothes
7. Buying only clothes from sustainable brands

Clothing consumption
1. Why do you think there is such high level of clothing consumption?
   a. What can be done to change this?
2. How would you describe your clothing consumption?
3. Has there been a point in your life where you deliberately changed how (much) you consume clothes?

Encouraging sufficient clothing consumption
1. How and by whom do you think sufficiency clothing consumption should be encouraged?
2. What do you think about sufficiency marketing by clothing companies?
3. Should policies be addressing sufficient clothing consumption?
4. Do you think that you, as a consumer, can impact big fast fashion brands?

End
1. Is there something you would like to add that might be relevant for my research on sufficient clothing consumption?

# III. Appendix – List of Q statements

*Table III-1: List of statements and representative codes*

| Code | Code | Statement |
|---|---|---|
| Awareness | | I don't think that my clothing consumption has a high impact, looking at the big picture, thus I don't feel the pressure to reduce my clothing consumption for environmental reasons |
| Awareness | | I have never thought of sufficiency when it comes to clothes |
| Awareness | Responsibility | By buying less, consumers can in the long run influence the amount of clothing produced in the world |
| Awareness | | Thinking about who made the clothes and where they come from helps me to reduce my clothing consumption |
| Barriers | Self-expression | Being sufficient in clothing consumption can conflict with individual creativity |
| Barriers | | Promotions and encouragement to consume more makes practicing sufficiency hard |
| Barriers | Repair | It is time consuming to repair one own clothes, so it is easier to buy new clothes |
| Barriers | Cost as a barrier | Since clothes are often cheap, I allow myself to buy more and find it easy to justify my purchases |
| Barriers | | It's hard for me to enter a clothing store without purchasing something |
| Barriers | Cost as a barrier | It is important that clothes are cheap in order for everyone to be able to afford it |
| Barriers | Cost as a barrier | Quality clothing that are designed to last a long time are too expensive, it is therefore easier to buy many cheap clothes instead |
| Definition | Quality + durables | Sufficiency is to buy quality and long-lasting clothes |
| Definition | Avoid | Sufficiency is to use the clothes you already have |
| Definition | Repair | Sufficiency is to repair your clothes |
| Definition | | Sufficiency is to buy less fast fashion |
| Definition | Renting | Sufficiency is to share clothes, both with friends and family, and through formal channels |
| Definition | | Sufficiency is to make your own clothes (sew) |
| Definition | | Sensible washing of clothes encourages sufficiency |
| Definition | Feel good | Sufficiency leads to more happiness |
| Definition | | Sufficiency is to not always want more, to be content. |
| Responsibility | Encouragement | Clothing companies should encourage consumers to practice sufficiency |
| Encouragement | | I do not trust companies that encourage less consumption in their marketing materials |
| Encouragement | | I would buy clothes from companies that encourage reducing consumption |
| Encouragement | | I have not noticed that clothing companies are encouraging people to reduce their clothing consumption |
| Enoughness | | I don't think I'll ever own enough of clothes |

| | | |
|---|---|---|
| Enoughness | | I feel like I have enough of clothes when I have clothes I can wear during laundry day |
| Enoughness | Definition | Sufficiency is to not own too many pieces of clothing |
| Enoughness | Definition | Sufficiency is to not own too few pieces of clothing, rather a little bit more |
| Enoughness | | I feel like I am constantly decluttering my closet, but he's always full, still often I feel like I don't have anything to wear |
| Quantity | Second-hand | If I only buy second-hand or vintage clothes, it really does not matter how much I buy |
| Quantity | Sustainable brands | If I buy clothes from sustainable brands, it doesn't matter how much I buy |
| Quantity | | Everyone has the right to buy as many items of clothing as they choose |
| Reasons for buying | | When I'm feeling down I want to buy new clothes to make me feel better |
| Definition | Charity | I am encouraging sufficiency when I give my clothes to charity |
| Barrier | Re-sell | Since I know I can always re-sell clothes, it is not a problem that I sometimes buy new clothes and never use them |
| Regulations | | Clothes that are produced under questionable conditions should be taxed higher |
| Regulations | Repair | Clothing repairs should be subsidized, that could lead to people buying less new clothes |
| Regulations | Sustainable brands | The government should support local designers that are making clothes in a sustainable manner |
| Regulations | | Governments should put caps on how many pieces of clothing each consumer is allowed to buy, then consumer would make better choices |
| Regulations | | Radical changes are needed to impact clothing consumption, governments should therefore ban consumers to buy NEW clothes |
| Barriers | Repair | If I had easy access to mending and re-making services, I think I would buy (even) less clothes |
| Responsibility | | Consumers are the ones responsible for the amount of clothes they consume/buy |
| Responsibility | | The government needs to educate consumers more on the environmental impacts of their consumption |
| Responsibility | | The government shouldn't be bothered with consumers' clothing consumption |
| Responsibility | | Influencers need to use their power to encourage people to use the clothes they own, instead of buying new ones |
| Reasons for buying | Self-expression | I use clothes to express myself, that's the main reason I have a lot of clothes |
| Reasons for buying | | I feel like I need to buy new clothes when I do not feel good about myself in public |
| Definition | Feel good | Owning fewer pieces of clothing can reduce stress |
| Enoughness | Definition | Sufficiency is to be happy with what you have, this doesn't only apply to clothes but also friends and family |
| Responsibility | Encouragement | Clothing companies should encourage consumers to buy less, not more. It should be a part of their environmental policy |

*Source: Author's elaboration*

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# IV. Appendix – Survey Questions

1. What is your age?
   - o 26-30
   - o 31-35
   - o 36-40
2. What is the highest level of education you have completed?
   - o High School (Education that ends at the age of 16)
   - o College (Education that ends at the age of 19)
   - o Bachelor's degree
   - o Master's degree
   - o PhD or higher
3. How often, on average, do you buy clothes?
   - o Everyday
   - o Few times a week
   - o Few times a month
   - o Few times over the year
   - o Less than few times over the year
   - o Never
4. Are your clothing purchases intentional or impulsive?
   - o Intentional
   - o Impulsive
   - o A mix of both
5. Why do you buy clothes?
   - o To replace damaged items
   - o To liven up your wardrobe
   - o To make you feel better
   - o It's a habit – something that I do on a regular basis
6. When you buy clothes, what kind of clothes to you usually buy?
   - o New and cheap clothes
   - o New designer clothes
   - o New clothes from sustainable or environmentally friendly brands
   - o Second-hand clothes
   - o Vintage clothes
   - o I do not buy clothes
7. Do you feel like you are sufficient in your clothing consumption?
   - o Yes, always
   - o Yes, most of the time
   - o I don't know
   - o Sometimes
   - o No, I don't feel like I am
8. What comes first to mind when you think about sufficiency when it comes to clothing consumption?

# V. Feedback from participants

*Table V-1: Feedback from participants on their most strongly agree/disagree statements*

| | Statements | Comments on statements |
|---|---|---|
| | **Most strongly agree with** | |
| 43 | The government needs to educate consumers more on the environmental impacts of their consumption | |
| 13 | Sufficiency means to use the clothes you already have | Companies and the State should be more responsible for how the consequences of clothing purchases and clothing production are communicated to consumers. |
| 3 | By buying less, consumers can in the long run impact the amount of clothing produced in the world | |
| 21 | Businesses should encourage consumers to practice sufficiency | |
| 43 | The government needs to educate consumers more on the environmental impacts of their consumption | Because I sincerely believe in Helen Keller's message in this context that says "together we can do so much, alone so little". Education increases knowledge and increased knowledge gives us the power to make better choices. If we all take on and buy less, it goes without saying that demand decreases and consequently supply. I find it quite horrible to think of all those who have died and been injured in making clothes for "rich" Westerners who buy clothes as if they were fast food. |
| 3 | By buying less, consumers can in the long run impact the amount of clothing produced in the world | |
| 24 | I have not noticed that clothing companies are encouraging people to reduce their clothing consumption | |
| 4 | Thinking about who made the clothes and where they come from helps me to reduce my clothing consumption | |
| 50 | Clothing companies should encourage consumers to buy less, not more. It should be a part of their environmental policy | Companies need to take responsibility, help with confidence to buy something new that really suits you, the more you use your clothes the more sufficiency, the more use of each garment the better and less consumption of other products that maintain a vicious circle. |
| 33 | When I'm feeling down I want to buy new clothes to make me feel better | |
| 13 | Sufficiency means to use the clothes you already have | |
| 16 | Sufficiency means to share clothes, both with friends and family, and through formal leasing channels | |
| 16 | Sufficiency means to share clothes, both with friends and family, and through formal leasing channels | I feel like these statements capture the concept of sufficiency very well and I therefore completely agree with them |
| 13 | Sufficiency means to use the clothes you already have | |
| 20 | Sufficiency is to not always want more, to be content. | |
| 16 | Sufficiency means to share clothes, both with friends and family, and through formal leasing channels | |
| 15 | Sufficiency is to buy less cheap clothes that do not last long (fast fashion) | |
| 42 | Consumers are the ones responsible for the amount of clothes they consume/buy | Focus on cheaper clothes and clothes produced in a bad way. Eventually, you buy less if your clothes last longer. |
| 36 | Clothes that are produced under questionable conditions should be taxed higher | |
| 4 | Thinking about who made the clothes and where they come from helps me to reduce my clothing consumption | |
| 36 | Clothes that are produced under questionable conditions should be taxed higher | Society just needs to work together and do better in these matters. It is not possible to rely on individuals to do better when companies constantly air well thought-out ads that tell you to buy more and more. Also it's just a matter of thinking about where the holes come from and that we take good care of our clothes so that they last us a long time. |
| 37 | Clothing repairs should be subsidized, that could lead to people buying less new clothes | |
| 18 | Sensible washing of clothes encourages sufficiency | |
| 12 | Sufficiency means to buy quality and durable clothes | |
| 29 | I feel like I am constantly decluttering my closet, but he's always full, still often I feel like I don't have anything to wear | I completely agree with these statements because they describe my consumption of clothes very well, this is an endless vicious cycle that one is in regarding clothes. You feel like you have nothing, go and add to the wardrobe that is already over full and then feel terrible because of the environmental impact that the clothing industry has. But then you also do not want to buy more expensive clothes that are supposed to be more durable because you want to have a selection and not always wearing the same clothes over and over again. Wearing new clothes gives one a |
| 25 | I don't think I'll ever own enough of clothes | |

| | | |
|---|---|---|
| 13 | Sufficiency means to use the clothes you already have | certain joy and a bit of a "new beginning" feeling. Resulting in a mix of joy and remorse in a person's head and you do not know where to choose and reject, but that may be where the ignorance comes in, if I knew more about the effects of fast fashion and the like I would probably think twice before buying more. But then the vicious cycle begins again when "you have nothing to wear". |
| 43 | The government needs to educate consumers more on the environmental impacts of their consumption | |
| 38 | The government should support local designers that are making clothes in a sustainable manner | I agreed with them because there is a need for more education and discussion about the effects of clothing consumption, but at the same time we need to stop focusing on individuals and rather push companies and producers and make it harder for them to sell all these clothes. I think changing the behaviour of individuals changes something in the long run, but we need to learn more about the harmfulness of consumerism and not just "choose a little better" with whom we shop but still continue to shop. |
| 3 | By buying less, consumers can in the long run impact the amount of clothing produced in the world | |
| 13 | Sufficiency means to use the clothes you already have | |
| 43 | The government needs to educate consumers more on the environmental impacts of their consumption | |
| 13 | Sufficiency means to use the clothes you already have | Governments need to be more involved in reducing clothing consumption, and it's a great idea (in my opinion) to impose higher taxation on clothes that are produced under poor conditions. We are doing this on other fronts (e.g. products from Russia) so this is something that can clearly help reduce unnecessary consumption. People nowadays are too eager to buy new clothes for every occasion instead of using the clothes they have - this is a "trend" at least in Iceland, not to show up in the same dress twice, this " trend "needs to be terminated. |
| 36 | Clothes that are produced under questionable conditions should be taxed higher | |
| 21 | Businesses should encourage consumers to practice sufficiency | |
| 43 | The government needs to educate consumers more on the environmental impacts of their consumption | |
| 11 | Quality clothing that are designed to last a long time are too expensive, it is therefore easier to buy many cheap clothes instead | I think these statements apply because it is difficult to resist temptation when they are cheap and accessible, I think people (myself included) should try to use the clothes I already have better, not always buy new ones for a new occasion, that's sufficiency to me. I can't walk into a clothing store because I always end up convincing myself to buy something. Regarding the statement about encouragement from businesses, I do not think it is entirely appropriate for a company trying to sell a product to advertise it but then encourage consumers not to buy too much, a little contradictory and might not be favourable to the company. It would certainly have a negative effect on their sales which would be good for us environmentally but not good for the company, it therefore does not make a lot of sense to me. |
| 13 | Sufficiency means to use the clothes you already have | |
| 21 | Businesses should encourage consumers to practice sufficiency | |
| 9 | It's hard for me to enter a clothing store without purchasing something | |
| 43 | The government needs to educate consumers more on the environmental impacts of their consumption | In my opinion, there needs to be a greater awareness of buying less clothes and reusing existing ones. |
| 15 | Sufficiency is to buy less cheap clothes that do not last long (fast fashion) | |
| 50 | Clothing companies should encourage consumers to buy less, not more. It should be a part of their environmental policy | |
| 12 | Sufficiency means to buy quality and durable clothes | |
| 49 | Sufficiency is to be happy with what you have, this doesn't only apply to clothes but also friends and family | Sufficiency feels like a broad concept that applies to lifestyle and opinions, and not just clothing consumption. Something needs to be done to combat overconsumption and fast fashion and these ideas sound like they would work to some extent. |
| 36 | Clothes that are produced under questionable conditions should be taxed higher | |
| 13 | Sufficiency means to use the clothes you already have | |
| 38 | The government should support local designers that are making clothes in a sustainable manner | |

| | Statements | Comments on statements |
|---|---|---|
| 13 | Sufficiency means to use the clothes you already have | Sufficiency is basically about not buying more, and therefore using the clothes you have already invested in better. |
| 36 | Clothes that are produced under questionable conditions should be taxed higher | I think it's very important that the Government comes in with radical changes, endless information campaigns don't change behaviour, and radical interventions are needed fast in order to something to change. |
| 49 | Sufficiency is to be happy with what you have, this doesn't only apply to clothes but also friends and family | Sufficiency seems to me to be quite a matter of state of mind and to be content that way |
| | | In a way sufficiency is about not consuming more than a certain limit- but I don't know what that limit should be |
| 27 | Sufficiency means to not own too many pieces of clothing | |

**Most strongly disagree with**

| | Statements | Comments on statements |
|---|---|---|
| 1 | I don't think that my clothing consumption has a high impact, looking at the big picture, thus I don't feel the pressure to reduce my clothing consumption for environmental reasons | Because I so strongly disagree. I admit that when I was younger I wandered between H&M stores and bought too many clothes, especially when I was abroad and thought "this was so cheap". Today, fortunately, my thinking has changed, but I can understand why people think that way. But since I could correct this way of thinking, others should be able to do the same. |
| 15 | Sufficiency is to buy less cheap clothes that do not last long (fast fashion) | |
| 31 | If I buy clothes from sustainable brands, it doesn't matter how much I buy | |
| 8 | Since clothes are often cheap, I allow myself to buy more and find it easy to justify my purchases | |
| 42 | Consumers are the ones responsible for the amount of clothes they consume/buy | Consumers are brainwashed by advertising on a daily basis and therefore they are only one part of the problem, companies should take more responsibility for the problems they create themselves, the reason why we are in this place today is precisely this thought "it does not matter what I do", I actually agree that it should be subsidized, I have accidentally put this here (about st. 37) |
| 22 | I do not trust companies that encourage less consumption in their marketing materials | |
| 1 | I don't think that my clothing consumption has a high impact, looking at the big picture, thus I don't feel the pressure to reduce my clothing consumption for environmental reasons | |
| 37 | Clothing repairs should be subsidized, that could lead to people buying less new clothes | |
| 10 | It is important that clothes are cheap in order for everyone to be able to afford it | I do not agree that consumers alone are responsible for the quantity they buy because there is endless pressure in society to look good, wear nice clothes, etc. that is external. There needs to be a change of attitude and education. "Fashion" that fluctuates as it does, means that individuals constantly have to buy new clothes to wear the latest fashion, and if it were not so cheap and easy, there might not be as many fluctuations in what is in fashion as people could use the same clothes much more often and longer. I almost never buy clothes without using them and try to wonder if this is something that is really needed before I buy. It's not hard for me to go to a clothing store without buying anything |
| 9 | It's hard for me to enter a clothing store without purchasing something | |
| 35 | Since I know I can always re-sell clothes, it is not a problem that I sometimes buy new clothes and never use them | |
| 42 | Consumers are the ones responsible for the amount of clothes they consume/buy | |
| 2 | I have never thought of sufficiency when it comes to clothing consumption | Again the same here. I think it's important not to buy a lot of cheap clothes, but rather more expensive clothes that are produced in a good way. |
| 8 | Since clothes are often cheap, I allow myself to buy more and find it easy to justify my purchases | |
| 10 | It is important that clothes are cheap in order for everyone to be able to afford it | |
| 46 | I use clothes to express myself, that's the main reason I have a lot of clothes | |
| 32 | Everyone has the right to buy as many items of clothing as they choose | As I said in the previous answer, society needs to change in order for individuals to start doing better. The responsibility can not only lie with the individuals. |
| 2 | I have never thought of sufficiency when it comes to clothing consumption | |

| | | |
|---|---|---|
| 11 | Quality clothing that are designed to last a long time are too expensive, it is therefore easier to buy many cheap clothes instead | |
| 1 | I don't think that my clothing consumption has a high impact, looking at the big picture, thus I don't feel the pressure to reduce my clothing consumption for environmental reasons | |

| | | |
|---|---|---|
| 40 | Radical changes are needed to impact clothing consumption, governments should therefore ban consumers to buy NEW clothes | These were statements that I did not relate to, I somehow do not think it is the right way for the government to decide how much clothing each person can have, I think that education is the right way for the government to contribute, because in the end the responsibility rather with the clothing companies and the consumer I think, rather than the government. |
| 6 | Promotions and encouragement to consume more makes practicing sufficiency hard | Marketing stuff has little effect on me, I do not get like "I have to get this" when I see an ad, more when I walk into stores and try clothes on. |
| 48 | Owning fewer pieces of clothing can reduce stress | I have not experienced stress when I have a lot of clothes, rather when I have few clothes. |
| 41 | If I had easy access to mending and re-making services, I think I would buy (even) less clothes | Since I do not buy a lot of expensive clothes I would not consider it worth taking them for repair, but as I write this I see that I am deeply immersed in fast fashion and probably need to rethink my consumption habits |

| | | |
|---|---|---|
| 15 | Sufficiency is to buy less cheap clothes that do not last long (fast fashion) | Although fast fashion is a big part of the problem when it comes to clothing consumption and its environmental impact, fast fashion brands are often the only option for some people, due to lower income or due to lack of size selection at other brands. And therefore it is quite possible to be sufficient and make good use of one's clothes even if one buys the well-chosen clothes with fast fashion brands. |
| 40 | Radical changes are needed to impact clothing consumption, governments should therefore ban consumers to buy NEW clothes | I think it is unrealistic and not a direct target if the government were to ban individuals from buying clothes, the government could rather be concerned with what companies are offering which would consequently affect individuals' consumption. |
| 42 | Consumers are the ones responsible for the amount of clothes they consume/buy | Consumers are not the only ones responsible as we live in a society that places high demands on the appearance of people and there are so many major influencing factors that are driving this extreme consumption that we are pursuing. |
| 23 | I would buy clothes from companies that encourage reducing consumption | |

| | | |
|---|---|---|
| 44 | The government shouldn't be bothered with consumers' clothing consumption | Fast Fashion is, of course, a toxic phenomenon that is easy to fall for. There are countless environmental factors that come into play that are difficult to influence (e.g. wages (people can not afford to buy expensive clothes), time (people make quick decisions in clothing purchases) etc.). |
| 10 | It is important that clothes are cheap in order for everyone to be able to afford it | The fact that clothes are sold cheaply contributes to more purchases and individual clothing consumption has an effect in the big picture. However, there is a clear need for a change of heart when it comes to buying clothes. I say that the government can not be bothered with the purchase of consumer clothing in the sense that they can not say " no you can not buy this " - but they can have an indirect effect with precisely trade sanctions, education and encouragement in the other direction. |
| 1 | I don't think that my clothing consumption has a high impact, looking at the big picture, thus I don't feel the pressure to reduce my clothing consumption for environmental reasons | |
| 15 | Sufficiency is to buy less cheap clothes that do not last long (fast fashion) | |

| | | |
|---|---|---|
| 5 | Being sufficient in clothing consumption can conflict with individual creativity | I do not buy clothes to express myself or to show my creativity. It's such a dangerous thought to think that one's clothing consumption has no effect in the big picture, because if everyone thought that nothing would happen. We (the world) all need to do this together to see some change, so everyone can make a difference. |
| 7 | It is time consuming to repair one own clothes, so it is easier to buy new clothes | |
| 46 | I use clothes to express myself, that's the main reason I have a lot of clothes | |
| 1 | I don't think that my clothing consumption has a high impact, looking at the big picture, thus I don't feel the pressure to reduce my clothing consumption for environmental reasons | |

| | | |
|---|---|---|
| 9 | It's hard for me to enter a clothing store without purchasing something | |
| 10 | It is important that clothes are cheap in order for everyone to be able to afford it | I do not often buy clothes as I use a lot of clothes from family members and try to reuse what is available. Cool clothes and fashion are not the most important thing in the world. |
| 6 | Promotions and encouragement to consume more makes practicing sufficiency hard | |
| 8 | Since clothes are often cheap, I allow myself to buy more and find it easy to justify my purchases | |
| 40 | Radical changes are needed to impact clothing consumption, governments should therefore ban consumers to buy NEW clothes | |
| 1 | I don't think that my clothing consumption has a high impact, looking at the big picture, thus I don't feel the pressure to reduce my clothing consumption for environmental reasons | Do not think it is possible to ban clothing purchases. Sufficiency is not giving clothes to charities because it's just a pretext to buy more. Everyone needs to reduce their own consumption because the individual matters. |
| 34 | I am encouraging sufficiency when I give my clothes to charity | |
| 2 | I have never thought of sufficiency when it comes to clothing consumption | |
| 42 | Consumers are the ones responsible for the amount of clothes they consume/buy | Consumers are just users of the system set up by the government and companies, it is therefore more important that the system changes and the government intervenes. |
| 43 | The government needs to educate consumers more on the environmental impacts of their consumption | The fact that cheaper clothes enable poorer people to follow the latest fashion trends does not seem to me to be right, but probably just a fast fashion company trying to justify the amount of clothes they produce |
| 10 | It is important that clothes are cheap in order for everyone to be able to afford it | People often think that they are doing good things when they donate clothes to charities, but most of the clothes end up in piles in countries in the Global South. Individuals therefore need to take responsibility for getting their clothes in the right direction , but again states and companies also need to step up here and make it possible. |
| 34 | I am encouraging sufficiency when I give my clothes to charity | |

*Source: Author's elaboration*

# VI. Participant's initial thoughts about sufficiency

*Table VI-1: Participant's answers to the question: What comes first to mind when you think about sufficiency when it comes to clothing consumption?*

| Codes | Participant's answers |
|---|---|
| Use what you have | To use the clothes you have already bought |
| Needs, not wants | To not buy too much of unnecessary clothes |
| Second-hand | Used clothes |
| Second-hand | Environmental impact, used clothes |
| Use what you have, Needs, not wants | Try to use what you already have, and avoid unnecessary purchases |
| Use what you have, Not following trends, Sharing | To use the clothes you already have, instead of always buying new. Using clothes in different way and be unafraid using the same clothes often. Also, to borrow clothes instead of buying new ones. |
| Use what you have, Durable clothing, Reduce clothing purchases | Reuse, buy less often and when you do, buy durable products |
| Use what you have, Content | Use clothing as long as possible, be content with what is in your wardrobe |
| Critical thinking, Not following trends | Something that me and many others should think more about. To think about clothing consumption in the context of our planet, not chasing fashion trends |
| Timeless | Timeless style |
| Critical thinking, Reduce clothing purchases | To buy clothes when what you already have are damaged, to buy only 1-2 pieces of clothing over long period of time |
| Practical | Less is more, usability over all else |
| Durable clothing, Quality, Needs, not wants | To not buy, just for case of buying, to buy if you really need something. If you own five black sweaters, do you really need another? To buy quality clothing that lasts for a long period of time. To really think about what you are about to buy and ask yourself: do I really need this? |

| Use what you have | To use what I own, for as long as possible |
|---|---|
| Use what you have, Critical thinking, | To use what I own as long as possible. To really think about clothing purchases, and and ask myself if I really need this. I feel it helps to close the website (online shopping) or walk out of the store and come back to it later. If I open the website again or walk back into the store it passes the 'impulsive buying test'. |
| Critical thinking, Second-hand | To really think about my clothing purchases, and to buy used clothing when possible |
| Practical | Simple and practical items that work for more than one occasion |

*Source: Author's elaboration*

# VII. Appendix – Q method results

Detailed results of the Q methodology are presented in this section.

*Table VII-1: Participants' loadings for each factor after Varimax Rotation*

| Participants | Factors | | |
|:---:|:---:|:---:|:---:|
| | **A** | **B** | **C** |
| 1 | 0,5218 | 0,0893 | 0,6636 |
| 2 | 0,7694 | 0,4108 | 0,0373 |
| 3 | 0,7546 | 0,2033 | 0,2863 |
| 4 | 0,1662 | 0,4478 | 0,4787 |
| 5 | -0,0516 | 0,6399 | 0,5294 |
| 6 | 0,2298 | 0,1731 | 0,7806 |
| 7 | 0,6694 | 0,0774 | 0,4068 |
| 8 | 0,5206 | 0,1992 | 0,5338 |
| 9 | 0,3562 | 0,55 | -0,0742 |
| 10 | 0,4714 | 0,3522 | 0,2165 |
| 11 | 0,4 | -0,003 | 0,7334 |
| 12 | 0,3648 | 0,585 | 0,3921 |
| 13 | 0,046 | 0,7771 | 0,2779 |
| 14 | 0,1843 | 0,758 | -0,0507 |
| 15 | 0,7518 | -0,0636 | 0,3857 |
| 16 | 0,6051 | 0,3391 | 0,4237 |
| 17 | 0,239 | 0,1152 | 0,4977 |
| 18 | 0,5469 | 0,2151 | 0,3353 |
| **Total pure loadings** | **7** | **5** | **5** |
| **Explained Variance (%)** | **23** | **17** | **20** |

*Source: Author's elaboration*

*Table VII-2: All statements and corresponding factor value*

| | Statements | Factor scores | | |
|---|---|---|---|---|
| | | **A** | **B** | **C** |
| 1 | I don't think that my clothing consumption has a high impact, looking at the big picture, thus I don't feel the pressure to reduce my clothing consumption for environmental reasons | -3 | -3 | -2 |
| 2 | I have never thought of sufficiency when it comes to clothing consumption | -3 | -1 | -3 |
| 3 | By buying less, consumers can in the long run impact the amount of clothing produced in the world | 3 | 1 | 3 |
| 4 | Thinking about who made the clothes and where they come from helps me to reduce my clothing consumption | 2 | 2 | 0 |
| 5 | Being sufficient in clothing consumption can conflict with individual creativity | -1 | -3 | -2 |
| 6 | Promotions and encouragement to consume more makes practicing sufficiency hard | -1 | 0 | 0 |
| 7 | It is time consuming to repair one own clothes, so it is easier to buy new clothes | -1 | 0 | 0 |
| 8 | Since clothes are often cheap, I allow myself to buy more and find it easy to justify my purchases | -2 | 3 | -2 |
| 9 | It's hard for me to enter a clothing store without purchasing something | -3 | 1 | -3 |
| 10 | It is important that clothes are cheap in order for everyone to be able to afford it | -2 | -1 | -3 |
| 11 | Quality clothing that are designed to last a long time are too expensive, it is therefore easier to buy many cheap clothes instead | 0 | 3 | -1 |
| 12 | Sufficiency means to buy quality and long-lasting clothes | 3 | 1 | 1 |
| 13 | Sufficiency means to use the clothes you already have | 2 | 3 | 3 |
| 14 | Sufficiency means to repair your clothes | 1 | -1 | 2 |
| 15 | Sufficiency is to buy less fast fashion | 1 | 0 | 1 |
| 16 | Sufficiency means to share clothes, both with friends and family, and through formal channels | 3 | 2 | 3 |
| 17 | Sufficiency is to make your own clothes (sew) | 0 | -2 | 1 |
| 18 | Sensible washing of clothes encourages sufficiency | 0 | 0 | 1 |
| 19 | Sufficiency leads to more happiness | 1 | 0 | 0 |

| 20 | Sufficiency is to not always want more, to be content. | 1 | 3 | 2 |
|----|----|----|----|----|
| 21 | Businesses should encourage consumers to practice sufficiency | 1 | 2 | 2 |
| 22 | I do not trust companies that encourage less consumption in their marketing materials | -2 | -2 | -1 |
| 23 | I would buy clothes from companies that encourage reducing consumption | 1 | 1 | 0 |
| 24 | I have not noticed that clothing companies are encouraging people to reduce their clothing consumption | 2 | 0 | 2 |
| 25 | I don't think I'll ever own enough of clothes | -1 | 2 | 0 |
| 26 | I feel like I have enough of clothes when I have clothes I can wear during laundry day | 0 | -1 | -1 |
| 27 | Sufficiency means to not own too many pieces of clothing | 1 | 0 | 0 |
| 28 | Sufficiency means to not own too few pieces of clothing, rather a little bit more | 0 | 0 | -1 |
| 29 | I feel like I am constantly decluttering my closet, but he's always full, still often I feel like I don't have anything to wear | 0 | 2 | -1 |
| 30 | If I only buy second-hand or vintage clothes, it really does not matter how much I buy | -2 | -2 | -1 |
| 31 | If I buy clothes from sustainable brands, it doesn't matter how much I buy | -2 | -2 | -1 |
| 32 | Everyone has the right to buy as many items of clothing as they choose | -1 | 0 | -2 |
| 33 | When I'm feeling down I want to buy new clothes to make me feel better | -1 | 2 | 1 |
| 34 | I am encouraging sufficiency when I give my clothes to charity | -1 | -1 | -2 |
| 35 | Since I know I can always re-sell clothes, it is not a problem that I sometimes buy new clothes and never use them | -2 | -1 | -2 |
| 36 | Clothes that are produced under questionable conditions should be taxed higher | 3 | 1 | 0 |
| 37 | Clothing repairs should be subsidized, that could lead to people buying less new clothes | 0 | -2 | 1 |
| 38 | The government should support local designers that are making clothes in a sustainable manner | 2 | 2 | 2 |

| 39 | Governments should put caps on how many pieces of clothing each consumer is allowed to buy, then consumer would make better choices | -1 | -2 | 1 |
|----|----|----|----|----|
| 40 | Radical changes are needed to impact clothing consumption, governments should therefore ban consumers to buy NEW clothes | -1 | -3 | -1 |
| 41 | If I had easy access to mending and re-making services, I think I would buy (even) less clothes | 0 | -1 | 3 |
| 42 | Consumers are the ones responsible for the amount of clothes they consume/buy | 1 | -3 | -3 |
| 43 | The government needs to educate consumers more on the environmental impacts of their consumption | 3 | 3 | 2 |
| 44 | The government shouldn't be bothered with consumers' clothing consumption | 0 | -1 | -2 |
| 45 | Influencers need to use their power to encourage people to use the clothes they own, instead of buying new ones | 2 | 1 | 2 |
| 46 | I use clothes to express myself, that's the main reason I have a lot of clothes | -3 | -2 | 0 |
| 47 | I feel like I need to buy new clothes when I do not feel good about myself in public | -2 | 0 | 0 |
| 48 | Owning fewer pieces of clothing can reduce stress | 0 | -1 | 0 |
| 49 | Sufficiency is to be happy with what you have, this doesn't only apply to clothes but also friends and family | 2 | 1 | 3 |
| 50 | Clothing companies should encourage consumers to buy less, not more. It should be a part of their environmental policy | 2 | 1 | 1 |

*Source: Author's elaboration*

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| ** ◄ Sufficiency means to buy quality and long-lasting clothes | Influencers need to use their power to encourage people to use | Sufficiency is to not always want more, to be content. | The government shouldn't be bothered with consumers' clothing | * Radical changes are needed to impact clothing consumption, governments | Since clothes are often cheap, I allow myself to buy more and find | It's hard for me to enter a clothing store without purchasing |
| By buying less, consumers can in the long run impact the amount of | I have not noticed that clothing companies are encouraging | I think it's awesome if clothing companies encourages less | Owning fewer pieces of clothing, can reduce stress | It is time consuming to repair one own clothes, so it is easier to | It is important that clothes are cheap in order for everyone to be | I don't think that my clothing consumption has a high impact, |
| ** ◄ Clothes that are produced under questionable conditions | The government should support local designers that are making clothes in a | Sufficiency is to buy less fast fashion | If I had easy access to mending and re-making services, I | ** ▶ When I'm feeling down I want to buy new clothes to make me feel better | I do not trust companies that encourage less consumption in their marketing | I use clothes to express myself, that's the main reason I have a lot of |
| The government needs to educate consumers more on the | * ◄ Clothing companies should encourage consumers to | Sufficieincy leads to more happiness | Sufficiency means to not own too few pieces of clothing, | I don't think I'll ever own enough of clothes | If I buy clothes from sustainable brands, it doesn't matter | I have never thought of sufficiency when it comes to clothing |
| | Sufficiency is to be happy with what you have, this doesn't only | ** ◄ Consumers are the ones responsible for the amount of clothes they | * Sufficiency is to make your own clothes (sew) | * Governments should put caps on how many pieces of clothing each | ** ▶ I feel like I need to buy new clothes when I do not feel good about | |
| | Thinking about who made the clothes and where they come from helps me | Sufficiency means to share clothes, both with friends and family, and | ** If quality long-lasting clothes were not so expensive, I | * ▶ Promotions and encouragement to consume more makes practicing | If I only buy second-hand or vintage clothes, it really does not | |
| | * ▶ Sufficiency means to use the clothes you already have | Businesses should encourage consumers to practice | Sensible washing of clothes encourages sufficiency | Everyone has the right to buy as many items of clothing as | Since I know I can always re-sell clothes, it is not a problem | |
| | | * ◄ Sufficiency means to not own too many pieces of clothing | I feel like I am constantly decluttering my closet, but he's always | * ◄ Being sufficient in clothing consumption can conflict with | | |
| | | Sufficiency means to repair your clothes | Clothing repairs should be subsidized, that could lead to people | I am encouraging sufficiency when I give my clothes to | | |
| | | | * ◄ I feel like I have enough of clothes when I have clothes I can wear during | | | |

## Legend

* Distinguishing statement at $P < 0.05$

** Distinguishing statement at $P < 0.01$

▶ z-Score for the statement is higher than in all other factors

◄ z-Score for the statement is lower than in all other factors

*Figure VII-1: Q-sort for Factor A*

*Source: As depicted after analysis in KADE software*

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| ** ◄ Since clothes are often cheap, I allow myself to buy more and find | ** ◄ I don't think I'll ever own enough of clothes | * ► Influencers need to use their power to encourage people to use | Everyone has the right to buy as many items of clothing as | It is important that clothes are cheap in order for everyone to be | I do not trust companies that encourage less consumption in their marketing | I don't think that my clothing consumption has a high impact, |
| The government needs to educate consumers more on the | Sufficiency means to share clothes, both with friends and family, and | Clothing companies should encourage consumers to | * ► Sufficiency is to buy less fast fashion | * ► Owning fewer pieces of clothing, can reduce stress | If I only buy second-hand or vintage clothes, it really does not | * ► Radical changes are needed to impact clothing consumption, governments |
| ** ◄ If quality long-lasting clothes were not so expensive, I | * ◄ When I'm feeling down I want to buy new clothes to make me feel better | I think it's awesome if clothing companies encourages less | Sufficiency means to not own too many pieces of clothing | I have never thought of sufficiency when it comes to clothing | If I buy clothes from sustainable brands, it doesn't matter | Consumers are the ones responsible for the amount of clothes they |
| Sufficiency means to use the clothes you already have | The government should support local designers that are making clothes in a | ** ◄ It's hard for me to enter a clothing store without purchasing | * ◄ It is time consuming to repair one own clothes, so it is easier to | * ► If I had easy access to mending and re-making services, I | * ► Governments should put caps on how many pieces of clothing each | Being sufficient in clothing consumption can conflict with |
| | ** ◄ I feel like I am constantly decluttering my closet, but he's always | Sufficiency means to buy quality and long-lasting clothes | Sensible washing of clothes encourages sufficiency | I am encouraging sufficiency when I give my clothes to | I use clothes to express myself, that's the main reason I have a lot of | |
| | Businesses should encourage consumers to practice | Sufficiency is to not always want more, to be content. | ** ► I have not noticed that clothing companies are encouraging | ** ► Sufficiency means to repair your clothes | ** ► Clothing repairs should be subsidized, that could lead to people | |
| | Thinking about who made the clothes and where they come from helps me | Clothes that are produced under questionable conditions | Sufficieincy leads to more happiness | I feel like I have enough of clothes when I have clothes I can wear during | ** ► Sufficiency is to make your own clothes (sew) | |
| | | Sufficiency is to be happy with what you have, this doesn't only | I feel like I need to buy new clothes when I do not feel good about | The government shouldn't be bothered with consumers' clothing | | |
| | | By buying less, consumers can in the long run impact the amount of | Sufficiency means to not own too few pieces of clothing, | * ◄ Since I know I can always re-sell clothes, it is not a problem | | |
| | | | Promotions and encouragement to consume more makes practicing | | | |

## Legend

\* Distinguishing statement at P< 0.05

\*\* Distinguishing statement at P< 0.01

► z-Score for the statement is higher than in all other factors

◄ z-Score for the statement is lower than in all other factors

*Figure VII-2: Q-sort for Factor B*

*Source: As depicted after analysis in KADE software*

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| Sufficiency means to share clothes, both with friends and family, and | Sufficiency means to repair your clothes | *<br>When I'm feeling down I want to buy new clothes to make me feel better | I think it's awesome if clothing companies encourages less | If I buy clothes from sustainable brands, it doesn't matter | Since I know I can always re-sell clothes, it is not a problem | Consumers are the ones responsible for the amount of clothes they |
| By buying less, consumers can in the long run impact the amount of | Sufficiency is to not always want more, to be content. | ** ◄<br>Governments should put caps on how many pieces of clothing each | I don't think I'll ever own enough of clothes | ** ▶<br>If quality long-lasting clothes were not so expensive, I | ** ▶<br>Everyone has the right to buy as many items of clothing as | It is important that clothes are cheap in order for everyone to be |
| ** ◄<br>Sufficiency is to be happy with what you have, this doesn't only | I have not noticed that clothing companies are encouraging | If I had easy access to mending and re-making services, I | ** ▶<br>Thinking about who made the clothes and where they come from helps me | If I only buy second-hand or vintage clothes, it really does not | Being sufficient in clothing consumption can conflict with | It's hard for me to enter a clothing store without purchasing |
| Sufficiency means to use the clothes you already have | The government needs to educate consumers more on the | Clothing repairs should be subsidized, that could lead to people | Owning fewer pieces of clothing, can reduce stress | It is time consuming to repair one own clothes, so it is easier to | Since clothes are often cheap, I allow myself to buy more and find | I have never thought of sufficiency when it comes to clothing |
| | Influencers need to use their power to encourage people to use | Clothing companies should encourage consumers to | Promotions and encouragement to consume more makes practicing | I do not trust companies that encourage less consumption in their marketing | I don't think that my clothing consumption has a high impact, | |
| | Businesses should encourage consumers to practice | * ◄<br>Sensible washing of clothes encourages sufficiency | Sufficieincy leads to more happiness | Sufficiency means to not own too few pieces of clothing, | The government shouldn't be bothered with consumers' clothing | |
| | The government should support local designers that are making clothes in a | * ◄<br>Sufficiency is to make your own clothes (sew) | I feel like I need to buy new clothes when I do not feel good about | * ◄<br>Radical changes are needed to impact clothing consumption, governments | I am encouraging sufficiency when I give my clothes to | |
| | | Sufficiency means to buy quality and long-lasting clothes | ** ◄<br>I use clothes to express myself, that's the main reason I have a lot of | I feel like I am constantly decluttering my closet, but he's always | | |
| | | Sufficiency is to buy less fast fashion | Sufficiency means to not own too many pieces of clothing | I feel like I have enough of clothes when I have clothes I can wear during | | |
| | | | Clothes that are produced under questionable conditions | | | |

Legend

\*   Distinguishing statement at P< 0.05

\*\* Distinguishing statement at P< 0.01

▶ z-Score for the statement is higher than in all other factors

◄ z-Score for the statement is lower than in all other factors

*Figure VII-3: Q-sort for Factor C*

*Source: As depicted after analysis in KADE software*