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the Swedish market for pre-owned apparel and its role in moving the fashion industry towards more sustainable practices

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preface

Thank you to all representatives from companies and organizations who provided data for this report.

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A Mistra Future Fashion Report

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MISTRA

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summary

This report is aimed at investigating the market for pre-owned garments and textiles in Sweden by identifying and analyzing the prevalent business models for pre-owned clothing in Sweden. The analysis and results of the study is based on interviews with 14 companies and organizations engaging in such business models, chosen from a pool of in total 36 identified organizations, as well as complemented by desktop studies of other studies and relevant statistical reports.

In business model theory the conception of circular economy has grown and generated a new field of circular business models, meaning that business models are designed to act restorative or regenerative by intention when it comes to the material value of the products and its environmental impact - as well as generating economic value for the business.

The analysis resulted in the following seven business models currently present in the Swedish market:

- Flea markets
- Physical second-hand stores
- Online C2C swapping
- Online classified platforms
- Online marketplace
- Collect & resell online webshops
- Own product take back and resale

While having some common characteristics, each business model exhibit their distinct business practices. The interviewed companies and organizations represent specialized distributors, traditional brands (fashion companies) and other actors. The interviewees shared their views and experiences on their business model, objectives, target customer profiles, their attitudes towards and motives for buying second-hand, future potential as well as quantitative data.

The findings of the study showed that internet played an important role in shaping new business models that have emerged distributing pre-owned apparel online. Internet e-trade platforms, social media used by individuals, such as blogger's bloppis, as well as by business entrepreneurs such as Sellpy, have entered the pre-used market. Some recent businesses also strive to sell pre-owned apparel in the same manner as new apparel, replicating the appearance of a fashion store to sell more clothes.

Additionally, the study also showed that some categories of second-hand is more often sold than others. For example second-hand for women is sold more often than both men and kids and premium clothing is more requested than not branded clothing.

Among the established fashion brands, less than a handful was engaging in the after-life of their products. The costs of collecting, sorting and making attractive offerings are still high in relation to the potential value that can be extracted. At this stage, second-hand solutions does not seem to attract the existing players but if pre-used gain significant market share, the whole fashion industry will certainly adapt. We have throughout the study seen a greater interest, from both the established and the newer players engaged in pre-used, why we expect continued efforts to find business models that capture both customer and business value in pre-used apparel. The questions remain if pre-used really is suitable for all apparel or if premium apparel and women's wear will continue to dominate the second-hand market.

While the qualitative data allows for interesting insights, the quantitative data is very limited, which illustrates not only the difficulty but also the future need for a more elaborate picture of the market for pre-owned textiles in Sweden.



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1. introduction

1.1 background

A study conducted by Statistics Sweden and Naturvårdsverket, the Swedish Environmental Protection Agency, in 2013 has shown that a Swede consumed almost 13 kilograms of clothing and other textiles per year (Statistics Sweden, 2015). What is even more interesting is what happens with the garments after purchase. Currently, only a very small fraction is reused or recycled and a volume of up to more than half of the annual consumption ends up being incinerated (Carlsson et al., 2011; Palm et al., 2014).

The high consumption of textiles naturally entails a significant environmental impact (Watson et al., 2017). A large part of the impact caused can be connected to the nature of textile production and aspects related to e.g. chemicals, water and energy inputs, dyeing and finishing of fabrics (JRC, 2015). While there are many ways to improve the processes of textile production, the option of prolonging the active lifetime of garments is another way to reduce new purchases and production (Watson et al., 2017). By replacing some of the purchases of new garments with a higher reuse and recovering rate of clothing, a part of the environmental destruction caused by textiles can be avoided (Roos et al., 2015; Schmidt et al., 2016; WRAP, 2014).

Previously, collection and sales of pre-owned apparel and textiles in Sweden has mainly been voluntarily conducted by charity organizations (Palm et al., 2014). However, recent research has revealed that the extension of lifespan of garments does not necessarily generate reduced profit or turnover for the textile industry. Instead, there exist opportunities to derive value from incorporating aspects of extending active life of apparel in business models, either through the same or consecutive users (Watson et al., 2015; Elander et al., 2017).

As a response to this, new business initiatives launched by both existing businesses and start-ups capturing some of the market potential in extending the active lifespan of garments have emerged (Watson et al., 2017). However, to date the knowledge about these new business models is limited and studies of the market and emerging new business concepts of pre-owned apparel has not been conducted.

This study aims to shed light on the emerging market and business models for pre-owned in Sweden and analyse the potential of these models to move the fashion industry towards more sustainable practices.

1.2 purpose of the study

The objective of this report is to capture and analyze the evolving and changing market of pre-owned apparel in Sweden. Currently, the understanding of the market is limited to traditional second-hand players but with the emerging new business concepts for extending the lifespan of apparel we need to better understand the market for pre-owned. Therefore this study aims at answering the following research questions:

- How do the market and business models for pre-owned apparel look like in Sweden?
- What potential role can pre-owned apparel have in moving the fashion industry towards more sustainable practices?

1.3 scope

The scope of the study is limited to Sweden. More specifically, it aims at capturing and analysing the evolving business models and market actors engaging with pre-owned apparel that are domiciled and active in the Swedish market. Sweden constitutes an interesting market for this study not only due to its fast-growing textile industry, but also thanks to its advanced sustainability mindset. While several Swedish reports have been written about the flows of textile waste and the management thereof (e.g. SMED, 2011), this study concentrates on the hitherto sparsely researched lifetime expansion of pre-owned apparel in Sweden.

While there are different ways of extending the lifespan of textiles this study will focus on the reselling of pre-owned apparel. More specifically, the study is restricted to the monetized exchange of pre-owned garments, which excludes the following two categories:

- Informal, non-monetized swapping within families and among friends
- Reselling of overstock by companies

1.4 delimitations & research design issues

Even though the authors are aware of the considerable amount of cross-border transactions when it comes to both donations and online shopping of vintage apparel, the study was limited to the Swedish market for the reasons outline above.

Naturally, the concept of markets may also be considered as a delimitation in itself due to the ambiguous nature and subjectivity in definitions, which generate diverse perspectives of what constitutes markets. For the purpose of this study, the concept of markets is therefore reviewed and defined in section 3, providing a theoretical ground of how to estimate and grasp the market of pre-owned apparel in Sweden.

Similarly, the concept of business models has not been unanimously defined, which constitutes a challenge for the categorization and analysis of the various models in this study. Therefore, the concept of business models is briefly explored and defined in section 4 to provide a ground for how the models are evaluated.

2. method

The method used for this research includes the screening of companies and organizations engaging in pre-owned apparel; the classification of different business model types; the selection of relevant players; interviews with selected companies and the analysis of insights therefrom as well as from other secondary data sources. A schematic illustration of the research method is depicted in Figure 1 .

In a first step, the Swedish fashion and textile market was screened for companies and organizations dealing with pre-owned apparel in a direct or indirect way. The screening resulted in a pool of 36 companies and organizations (see appendix 1) . The list of organizations should not be seen as exhaustive but rather as a collection of examples that was used for the subsequent selection of respondents. Due to limited time and spatial constraints, small individual stores are largely neglected in this study with the exception of Arkivet (see appendix 2).

Unfortunately no available statistics or data of how many pre-owned stores or companies there are could be found which is why we have not be able to estimate the marketshare that they represent. The 36 companies chosen for further investigation were selected based on their uniqueness and possibility to contribute to this research. Furthermore, special emphasis was put on partner organizations of Mistra Future Fashion.

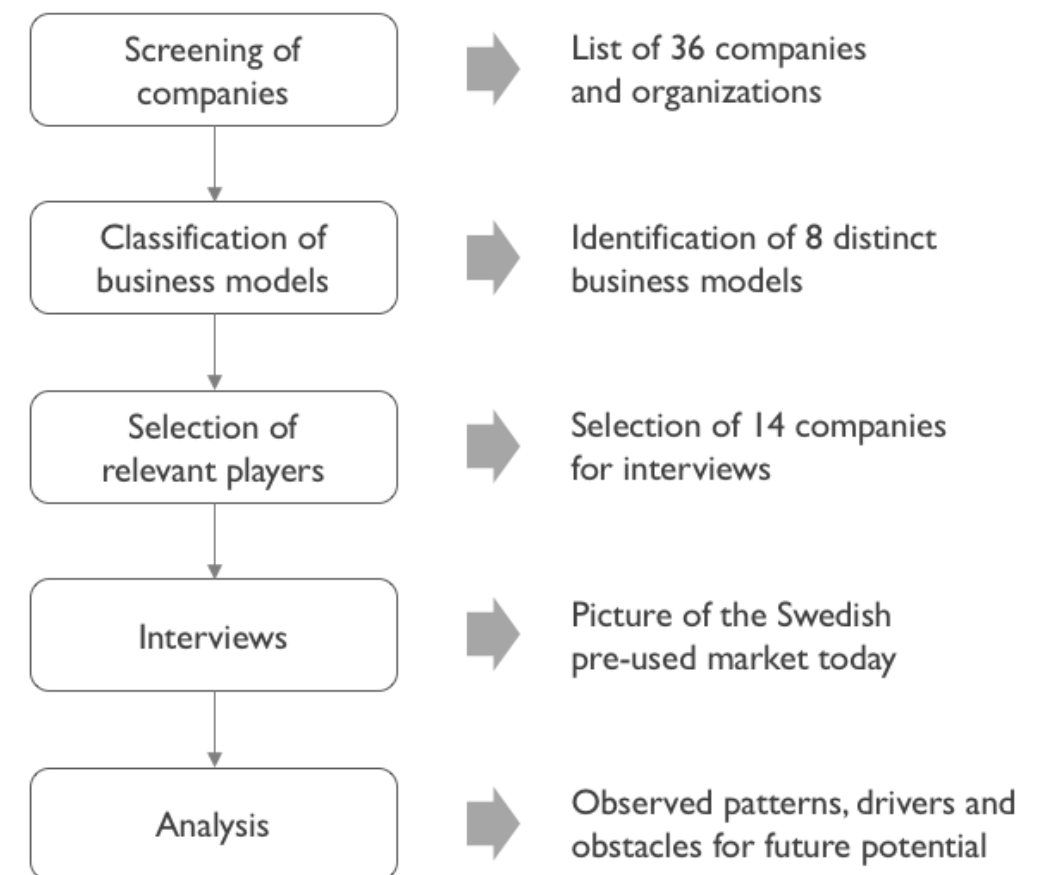


Figure 1: Schematic illustration of the method used for this study

Within this pool, companies and organizations can be categorized into six different groups according to the figure below.

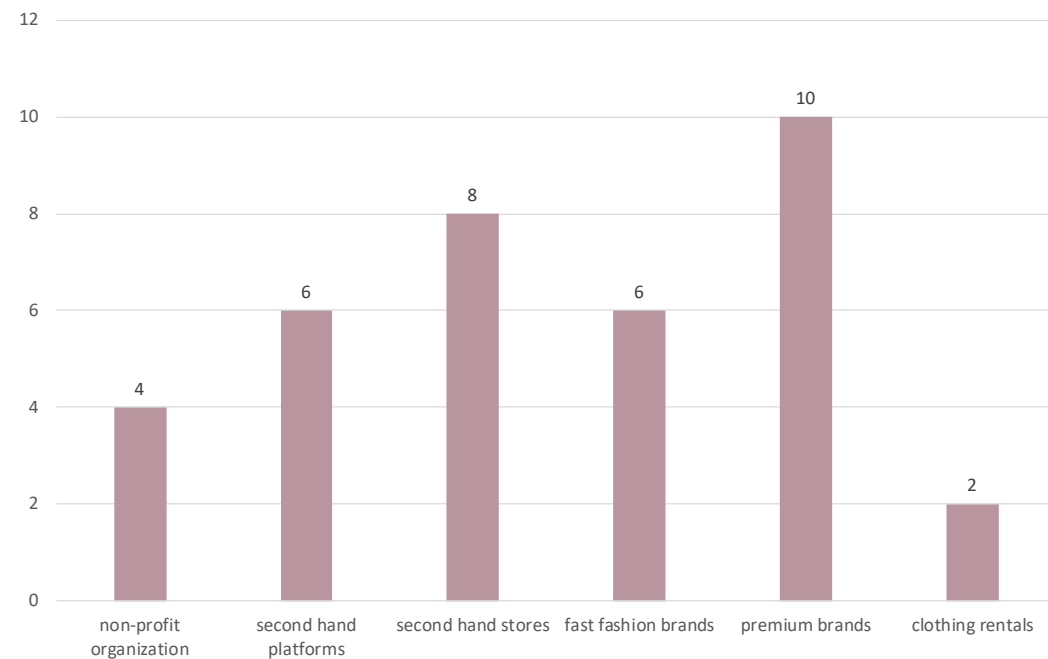


Figure 2: Categorization of screened companies and organizations

For the purpose of gaining a comprehensive overview and understanding of the Swedish pre-owned apparel market, the companies and organizations were selected with the aim of covering actors from all groups identified above. Based on this and the availability of the actors, an initial list of interviews was put together, which was extended after the first interviews based on recommendations from interview partners. Eventually, personal interviews were carried out with respondents from 14 selected Swedish companies and organizations during April to June 2018 (see appendix 2). All respondents were closely working with the topic, with most of them being the (co)founder or (co)owner of the business or being responsible for sustainability or sales within their organization.

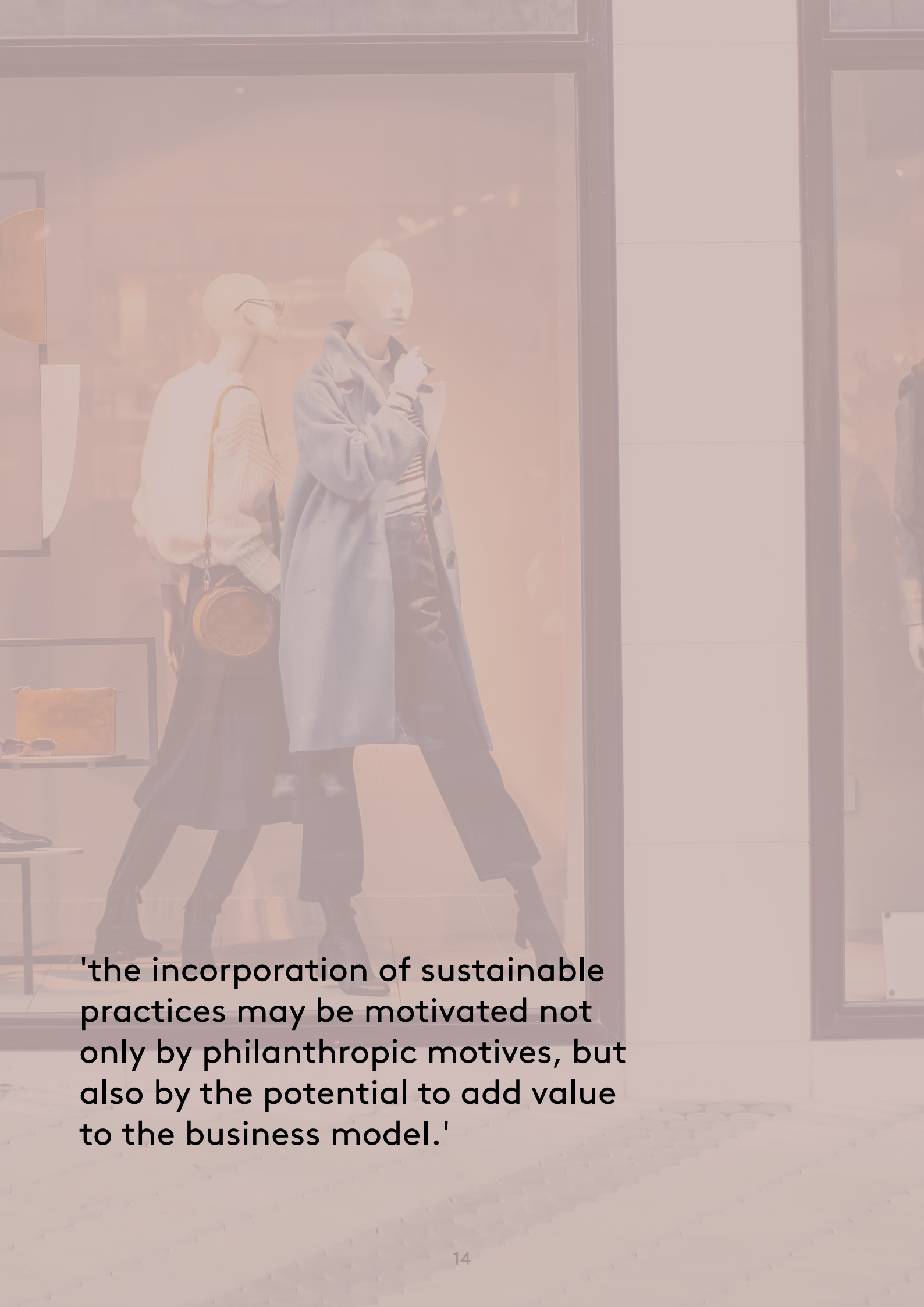
The interviews were semi-structured, taking their starting point in the interview guide provided in appendix 3 . The interviewers had the possibility to follow up on inputs by the respondents so that certain aspects could be further elaborated on. The analysis in this report is based on the inputs given by the interviewees as well as data from prior reports and relevant studies related to the topic at hand.

2.1 the market for pre-owned

For the purpose of understanding the market of pre-owned apparel in Sweden, the four dimensions of customer functions, technologies, customer segments and level of distribution will be described and discussed in order to fully grasp the aspects of it.

- **Customer functions** relates to the function that is performed by the product or a service and hence the benefit sought by the customers.
- **Technologies** refers to the different ways that this function can be performed, in the context of pre-owned apparel this could be offline or online.
- **Customer segments** is the grouping of customers that have similar needs and search for the same benefit in the function.
- **Level of distribution** considers where and how the market actors operates in the supply chain. This dimension is probably the most relevant in the context of pre-owned apparel, since the redistribution of apparel requires an interplay between the actors and consumers in the market.

In order to estimate and outline the Swedish market for pre-owned apparel the market will be described through its actors and how they pursue their business relating to the four above mentioned dimensions in chapter 4. Whilst the relevant insitutions facilitating and affecting the market are not further investigated, this will still be discussed in chapter 6 and 7 in relation to the findings in order to provide a comprehensive picture.



'the incorporation of sustainable practices may be motivated not only by philanthropic motives, but also by the potential to add value to the business model.'

3. extending the lifespan of apparel – concepts and business models

3.1 the concept of Circular Economy

The concept of striving towards prolonging and increase the utilization of produced resources is rooted in the theory of Circular Economy (De Angelis, 2018). Contrasting the linear model of resource consumption typical for industrial societies, the industrial model of Circular Economy is intending to optimize the use of resources and to decrease or remove waste (Gallaud & Laperche, 2016).

Being a nascent research stream, no consolidated theoretical definition of Circular Economy has been established (De Angelis, 2018). For this scope the most common definition is delineating the conceptualization, according to which Circular Economy is “an industrial system that is restorative or regenerative by intention and design” (EMF 2015, p. 2). This implies that the circular industrial model is shaped around various value creating mechanisms decoupled from exhausting finite resources and therefore constitutes the base for prolonging the lifespan of used resources. The primary goal is to create a flourishing economy while treating resources in a regenerative and restorative way, which implies the urgency for businesses to incorporate activities to prolong lifetime of apparel (EMF, 2015).

3.2 lifespan extension – the preferred way towards sustainability

Prolonging the active lifespan of clothing is one of the relevant ways to lower the negative environmental impact generated by the textile industry. Previous research has shown that it is possible to derive profit and turnover from doing so (Watson et al., 2017). A Mistra Future Fashion reports have identified 5 main groups and 22 sub-groups of business models or business initiatives which have the potential to expand the active lifespan of garments (see figure 3).

For the purpose of this report, it is important to stress the difference between active and functional lifespan of apparel. Whilst functional lifetime refers to an item being in usable condition for its purpose, active lifetime refers to the item actually being used and for the customers to be willing to wear an item. This study is focusing on business models that contribute to ensuring the active use of pre-owned apparel. Consequently, businesses focusing on recycling of textile fibres or repurposing the material of old clothes to furniture filling are out of scope. -The business models and initiatives that are within the focus of this study are highlighted in figure 3 .

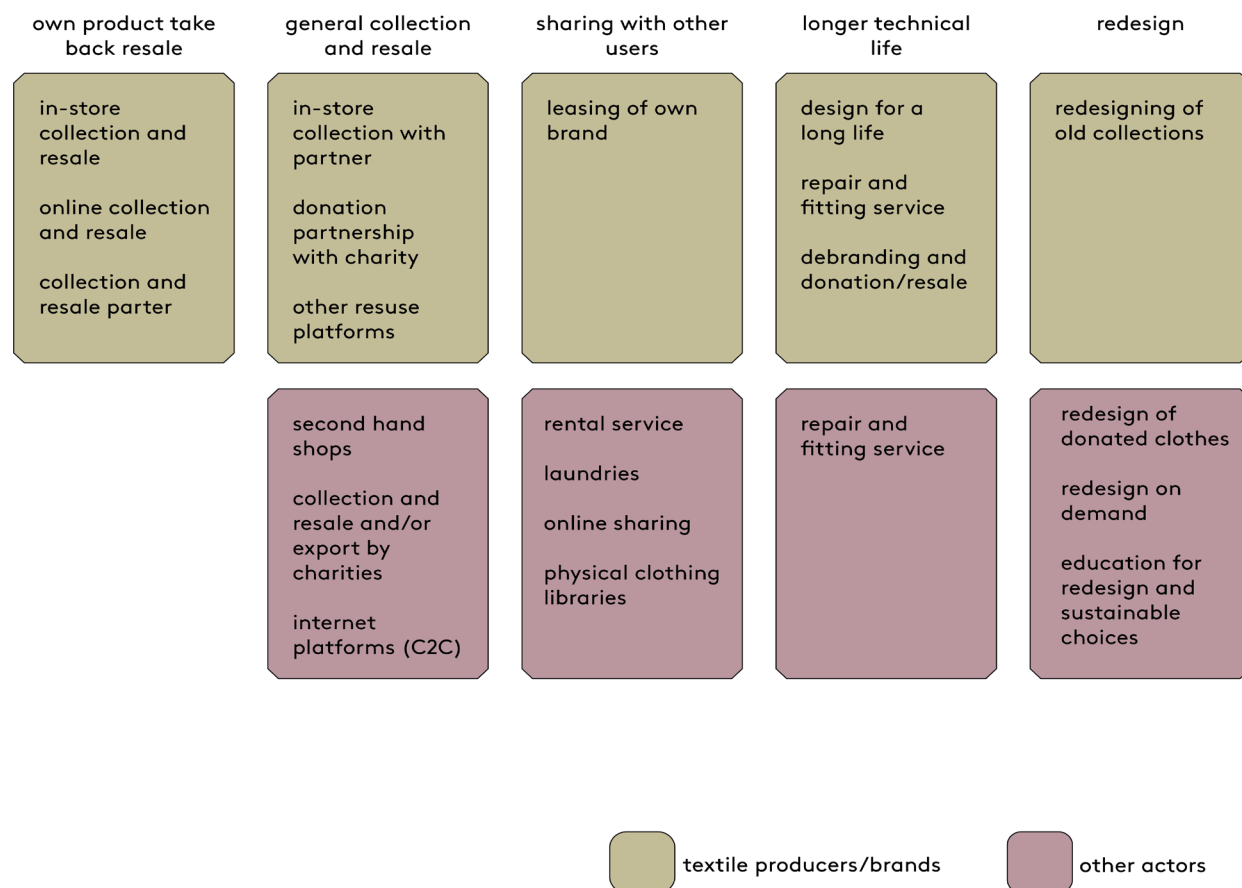


Figure 3: Mapping of lifespan-expanding business
Source: Elander et al 2017, developed from Watson et al 2015.

3.3 ways of extending the active lifespan of apparel

The concept of extending the active lifespan of apparel can be rather ambiguous and defined in different ways. A framework by Kirchherr et al (2017) suggests five approaches contributing to extending the lifespan of a product that can be applicable to garments: Reuse, Repair, Refurbish, Remanufacture and Repurpose.

Reuse refer to making sure that an item in usable condition is utilized and reused even when the first owner of the item does not want to use it anymore. Basically this refers to traditional second-hand distribution and more concretely reselling an already used and discarded item to a second consumer.

Repair is about restoring a consumed item to its original condition. Hence, in terms of apparel this would include everything from to fix broken zippers or to sew hems.

Refurbish is similar to repair, but instead of restoring an item to its original condition it entails that the product design is updated. In terms of textiles this is what is often referred to as upcycling and the purpose is to bring items out of fashion into fashion again by modernizing the design.

Remanufacture deviates from the above mentioned approaches as it instead of restoring or updating a pre-owned item it refers to reusing the parts of the item to manufacture a new one with the same function. More specifically could for example be to cut the arms of a used shirt and sew them together with other parts to a new shirt.

Repurpose is similar to remanufacture but instead of manufacturing a new item with the same function of the used parts, it refers to manufacturing a new item fulfilling a different function. Hence, this could be to use the parts of pre-owned jeans to make a shirt.

Within the fashion industry, these five approaches can be found in the form of various business models, which are presented in chapter 5.

3.4 business models for sustainable practices

While the term 'business model' is widely used, literature has not yet agreed upon definition of what constitutes a business model (Wirtz et al., 2016; Zott et al., 2011). Amidst the abundance of different conceptions, the notion suggested by Osterwalder and Pigneur (2010) is most widely spread. According to the authors, "a business model describes the rationale of how an organization creates, delivers and captures value" (p. 14). In Osterwalder and Pigneur's model as well as in many other conceptions, an overarching prevalence of the constituting end of creating 'value' is detectable.

Most widely spread is the value-based conception of business models, incorporating the elements of (1) value proposition, (2) value creation and delivery, and (3) value capture (Richardson, 2008). Naturally, value is a central concept, as it is the ultimate goal for any organization to deliver value to its stakeholders. However, as organizations can involve a wide range of stakeholders whose demands may collide, delivering value to one stakeholder may destruct value for another at the same time (Cohen et al., 2007). Morioka et al (2016) argue that business models are often restricted to seeking short-term and revenue centered values and therefore fail to incorporate sustainable practices. For example, profit-maximization for shareholders may entail wasteful business practices that lead to harmful environmental impact.

The employment of more sustainable business models is a possible approach towards a more balanced recognition of all stakeholders. For this purpose, the value-based conception of business models is particularly suitable (De Angelis, 2018). The conception of a sustainable business model is particularly unclear as the inconsistent business model definition meets the ambiguous concept of sustainability (De Angelis, 2018). However, literature on sustainability-oriented business models suggests that value should be understood in a wider sense and incorporate both a firm-level and system-level perspective (Stubbs & Cocklin, 2008).

This implies that businesses cannot only be focused on value-creating activities, but needs to look at the practices as a part of a wider system of stakeholders and its environment (Murray et al., 2017). Accordingly, the value proposition of a sustainable business incorporates not only economic but also environmental and social value (Bocken et al., 2013).

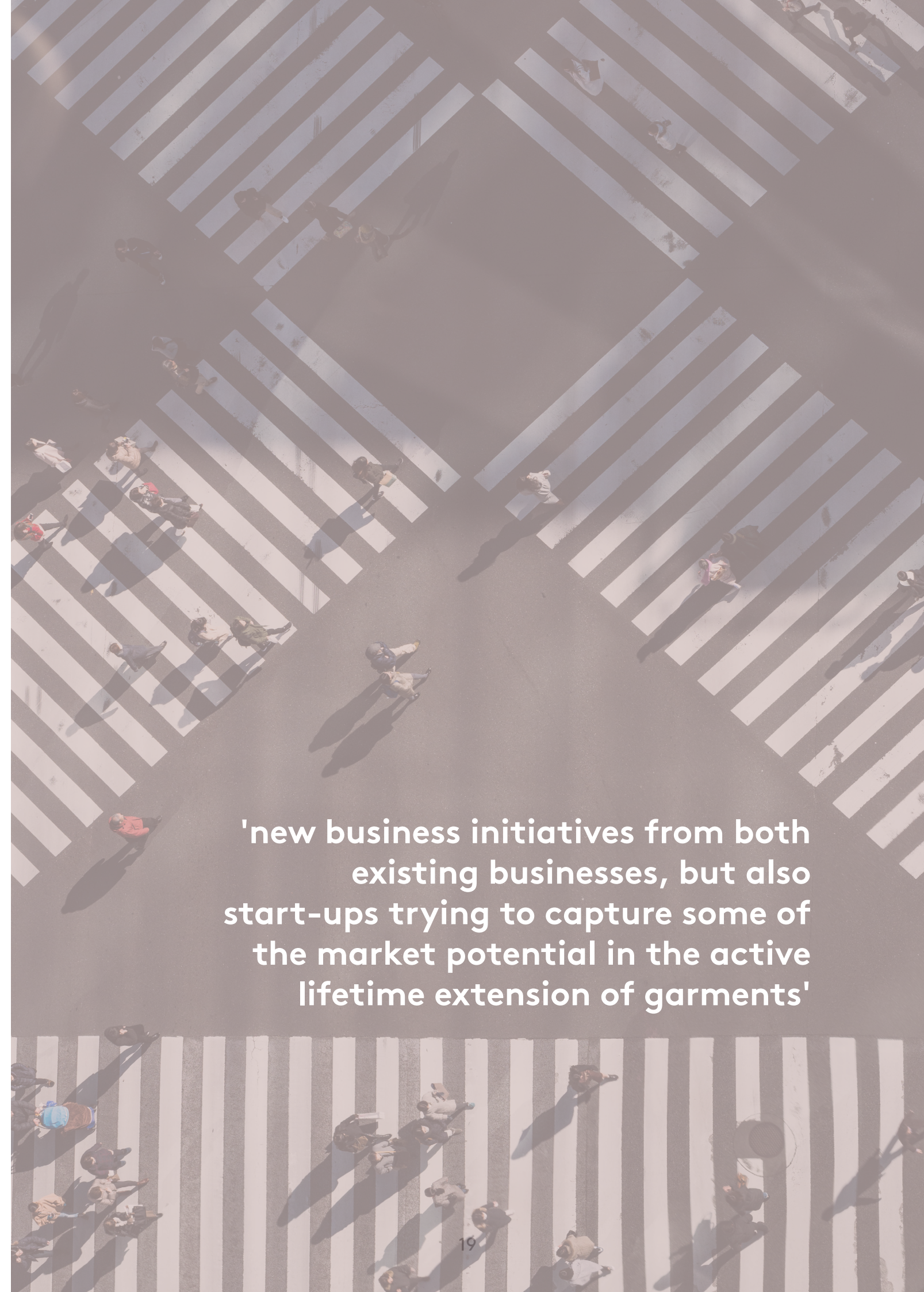
Coherent with this, Lüdeke-Freund (2010) suggest that sustainable businesses create a competitive advantage not only by generating customer value, but also through working responsibly towards ecological and social means. This is what is commonly referred to as the triple bottom line.

3.5 the business incentive behind prolonging the lifespan

The previously mentioned note that business models are often restricted to seeking short-term and revenue centered values and therefore fail to incorporate sustainable practices. Morioka et al., (2016) emphasize the importance of revenue centered values for companies when considering sustainable practices. Therefore, the fact that the prolonged lifetime of garments does not necessarily generate less turnover or profit for the textile industry makes this strategy particularly relevant in the context of moving towards more sustainable practices (Watson et al., 2015; Elander et al 2017).

Consequently, the incorporation of sustainable practices may be motivated not only by philanthropic motives but also by the potential of such strategies to add value to the business model. This has led to new business initiatives from both existing businesses but also start-ups trying to capture some of the market potential in the active lifetime extension of garments (Watson et al., 2017).

Since both the strategies and business models of actors incorporating these are dissimilar, a better understanding of the different groups of business models and what strategies they pursue is needed in order to grasp the business incentive behind the initiatives of prolonging the lifespan of apparel. Hence, the next section will outline the identified business models pursuing strategies that extend the active lifetime of apparel within the Swedish market.



'new business initiatives from both existing businesses, but also start-ups trying to capture some of the market potential in the active lifetime extension of garments'

4. the Swedish market for pre-owned apparel today

Prolonging the lifetime of apparel is not a new phenomenon and has for centuries been pursued in informal ways with clothing being passed on within families or among friends. Not only this form of non-monetized exchange can be traced back in history, but also monetized exchange has for long occurred, for example in the form of village trade (North, 1991). This traditional form later turned into flea markets, which were then accompanied by the emergence of commercial niche stores specialized in second-hand clothing around the world. According to Konsumtionsrapporten 2016 (Roos, 2016) that provides an overview of the consumption of Swedish households, second-hand shopping is one of the increasing consumption trends. Driven by shifting values and technological change, new business models and ways for companies to incorporate aspects of pre-owned apparel have emerged. Based on our study, the following different business models and platforms have been identified.

4.1 businesses and platforms prolonging the lifetime of apparel in Sweden

flea markets

Flea markets (swap markets or "loppisar" in Swedish) are a type of marketplace that dates back to the middle ages (North, 1991). It describes a physical space where vendors and buyers meet in person to buy and sell merchandise or barter goods. It is a pure C2C business, where goods are exchanged among customers and citizens without direct involvement of commercial businesses. However, commercial actors are often involved in an indirect way by providing a physical market space where flea markets or trunk sales can take place. In this case, vendors are charged a fee to set up their sales table or park their car on site. This form of organized flea markets is a very popular and common market place during the months of April to September. In the greater Stockholm area, 155 flea-markets and trunk sales were organized by Stockholmsmarknader alone, an organization which arranges these kinds of markets since over ten years. In 2016, they succeeded in setting the record for the world's largest trunk sale, with over 1000 vendors selling from their cars at Solvalla horse racing stadium outside Stockholm (Stockholmsmarknader, 2018).

It must be noted however that the most commonly offered goods are used household and electronics products, old books and games, collectibles and antiques as well as fresh or baked goods. While second-hand clothes are likely to have been a popular product in earlier times, the offering thereof is very limited on modern day flea markets. Consequently, the few vintage items that can usually be found constitute only a small percentage of the whole flea market.

Case 'Bloppis'

As a modern version of the traditional flea market there is concept of the Swedish market referred to as 'Bloppis'. A bloppis is a number of influencers coming together, either by own initiative or by a blog network, to arrange their own branded flea market and leverage their online marketing channel. Even though the concept of C2C selling is similar to an ordinary flea market, this is a way to reach a new audience and different segment than the traditional flea market. However, it is important to note that these occasions are often combined with a charity perspective and donations as a part of the objective.

One example of this concept was a recent 'Bloppis' arranged by the blog portal Nouw late February 2018. During this event, eight different influencers took part and sold their previously owned apparel to new consumers. The influencer Gertrude Tornvall was one of the participators and in one of the blog posts of her blog she showcases the event with photos and descriptions (1).



(1) <http://gertrudes.nu/tack-for-idag-33109785>

physical second-hand store

One of the most common ways to exchange clothing is through physical second-hand shops. Physical second-hand shops usually handle the collection of pre-owned clothing on their own and then distribute it after sorting out the relevant pieces. From the study, the findings have shown that the traditional physical second-hand shop today can be categorized into two subcategories: the traditional physical second-hand store for profit and the newer niche physical second-hand store replicating ordinary fashion stores. When distinguishing between these subcategories the main factors that differentiate is the assortment and shop design.

The traditional physical second-hand shop is a store that in the sorting takes most of the items they think are resellable according to functional condition while less emphasis is put on brands. The store itself is an obvious second-hand store with a retro assortment emphasizing that the items have been worn before. Examples for this would be Emmaus or Lisa Larsson, which are both located in Stockholm. In addition to these typical second-hand stores, a new type of second-hand store for profit has emerged in the Swedish market. This store is niched in its assortment and only sells specific brands. The store itself is trying to replicate an ordinary fashion store when it comes to store design, scents and music. One of the main objectives is to keep a high level of fashion to achieve the same kind of item turn-over as an ordinary store.

not-for-profit actors and second-hand apparel

Not-for-profit second-hand selling most commonly take place through physical second-hand shops. The shops are similar to the traditional shop for profit when it comes to assortment as the emphasis is not high on the clothing to being fashionable. The clothing distributed through the stores are always given to the stores for free as a charity donation as comparison to traditional stores. Hence, the goal is to find clothing in functional condition that makes it resellable. The purpose of the second-hand stores is to generate profit in order to donate it to charity.

Case 'Arkivet'

Arkivet is a second-hand store located in Vasastan, Stockholm. Its business model is the embodiment of this newer kind of second-hand store, which is aimed at conveying the image of a fashion boutique. From the outside, nothing discloses Arkivet as a second-hand store. The windows are nicely decorated, with only a few garments on display. This fresh, clean image continues on the inside, where the customer can stroll through a nicely laid out store, with a reasonable amount of garments on display, leaving enough space to leave an almost luxurious impression. The music playing in the background is carefully chosen, and the air is lightly scented with a special fragrance. If one needs help, there are shop assistants available to assist the customer in choosing the right piece of clothing.

Arkivet's offering is focused on women, but also offers a small baby assortment. Customers can bring the clothes they no longer want, and they are sorted on a daily basis. In this process, Arkivet does not take in all garments but only the ones they are convinced that they can sell. There are no restrictions however when it comes to specific brands, as long as the clothes are fashionable and in line with the store's image and style. Consequently, customers can find everything from H&M garments to Christian Louboutin shoes. The garments that are taken in are then equipped with both a price tag and security tag, which further adds to the experience of a real store. Upon sale of a piece, the former owner will receive a share of the proceedings.



rental platforms

Solutions for renting clothes have existed for a while, in particular in the United States. The concept seems to be especially popular for evening dresses that are usually only worn once, as there are many occasions to wear formal dresses (e.g. prom nights etc.). In Sweden, the business model is not as popular (yet), but does exist in various forms. While this business model extends the lifespan of the clothes, it does not revolve around the concept of “pre-owned fashion” but rather falls into the sharing economy. The garments that end up in a second-hand store are then incorporated in that other business model.

online C2C swapping

The accessibility of second-hand apparel online started off exactly like the physical offerings, with C2C exchange. Hence, as a start to the online second-hand selling, consumers used platforms and forums to market and offer their pre-owned clothing. Today, various groups exist on Facebook or other social media and seemingly it is still a common way to sell items C2C. However, this completely C2C-driven initiative was already 20 years ago (Blocket, 2018) complemented by classified online selling markets providing a multi-platform for selling pre-owned items as well as apparel.

Case 'Remake'

Recently, one of the not-for-profit actors started to not only redistribute the items for resusage but included strategies to process the items for making them more fashionable. Hence, the not-for-profit organization Stockholms Stadsmission has for long been selling second-hand in physical shops and has for 15 years been selling some pre-owned items that are refurbished, remanufactured or repurposed.

The year of 2016 they started a specific brand and concept store for pre-owned items that are redesigned in any way called 'Remake' (Stadsmissionen, 2018).



classified online second-hand selling

From the idea of C2C swapping, classified online sites occurred. These online sites provide a platform for classified advertising, which is advertising posted online through categorical listing of specific products. In other words, this form is restricted to a meeting platform for matching interested vendors and buyers, while the actual purchase and transfer take place outside the platform. On classified online second-hand sites, apparel is only one of the categories among other goods such as cars or furniture.

online marketplace with integrated services

As compared to the classified online second-hand selling, there are also platforms of marketplaces that provides integrated services including bidding and payment solutions. Hence, this distinguishes them from the classified sites which are only working as meeting platforms. Thus, the online marketplaces with integrated services facilitate the exchange by offering services such as online card payment as well as collecting buyer information. That way the seller do not have to meet up the buyer or discuss payment methods but only need to ship the sold item. For these services, the seller pays the site a certain fee, usually in the form of a flat-rate or membership fee.

Case 'Sabina & Friends'

Sabina and Friends are a clothes rental company from Stockholm with a physical store in Vasastan offering luxury and premium casual, business and occasion wear of the latest season. For their concept, Sabina and Friends won the 2018 Elle Galan Conscious Award.

With the corresponding subscription, women are able to rent two or four garments every two weeks (799 SEK/1199 SEK). The clothes are tried and picked in the store with professional assistance from the skilled staff. The garments can be worn for two weeks, to the office, in private, to parties before being brought back to the store.

There, they are professionally cleaned and the customer rents two or four new pieces for the coming two weeks. In that way, the customers get to try different styles and experiment with patterns they would usually not be willing to buy, as the investment is regarded as too high. After the season however, they have the opportunity to buy the clothes they love at a great discount. The rest of the garments are given to second-hand stores for reselling.



collect and resale sites

This business model takes it a step further by taking over the logistics and other services for the customer. These can include the collection of the garments at the customers' homes and the storing and sorting thereof, photographing and uploading of the products to the own platform as well as the shipping and handling of the payment upon sale. In doing so, such businesses provide great additional value to the customer. However, instead of paying a flatrate, the vendor pays a percentage of the selling price to the provider, which usually constitutes more than 50 percent of the selling price. Regarding those considerably higher costs, this business model is designed to help the customer "get rid" of old clothing instead of trying to create monetary value for the customer.

own product take back and resale

On the Swedish market, there are a few fashion brands that themselves collect their used apparel and resell it through their own stores. Not only is the items resold in their current condition but some actors refurbish items thereby extend the lifespan of clothing and in a few cases also repaired clothing is resold in the stores. Currently, this phenomena is not common but is a prevalent initiative by some first movers at the Swedish market such as Fillippa K and Nudie.

Case 'Tradera

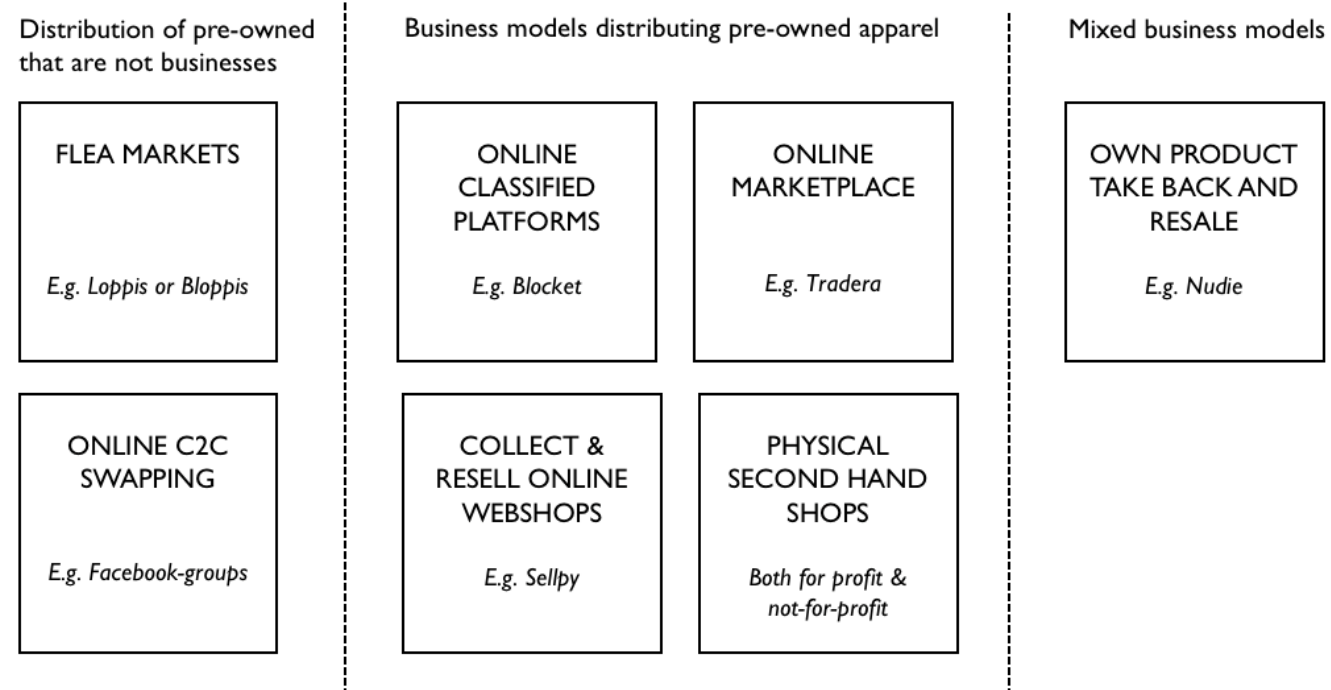
Tradera is one of Sweden's largest online market places with over 2 million users. Naturally, they play a crucial role when it comes to the exchange of second-hand goods and are likely to be the largest player within second-hand clothing in Sweden. In addition to the individual users, Tradera is used by other businesses such as Sellpy as a platform to sell their second-hand items. It is estimated that around 20 percent of the annual sales volume traded on Tradera is generated by clothing (interview).

Tradera is a trading platform with a far-reaching integration of complementing services. The buyer and seller therefore never have to meet. The buying agreement including the price for an item is concluded on the platform, the item can be shipped and the bill settled through Tradera. Therefore, it is an easy and suitable model for a wide array of customers located in all over Sweden, offering and buying second-hand garments belonging to all qualities and price ranges.



4.2 summary of pre-owned apparel market in Sweden

Figure 4 below provides a summary of the identified distribution channels for the monetized exchange of pre-owned apparel found on the Swedish market. This includes both the monetized distribution of pre-owned that are taking place outside of formal businesses but also business models involved in the facilitation of these exchanges. In addition to this, a mixed business model was identified which includes already existing fashion players to incorporate own product take back and resale.



An additional business model found in the Swedish market that increases the reuse of apparel is RENTALS. However, rental businesses are outside the scope of this study.

Case 'Nudie'

Designing timeless denim items, Nudie experienced that customers wanted to wear their jeans even when the functional time had run out as they came back and asked for assistance in repairing. This led Nudie to decide to offer a repairing service of their used items and realised that some items required patches. Therefore, they started to collect back their previously distributed items to use as patches in exchange for a discount on a new pair of jeans.

When screening the collected back items, Nudie saw that many of the jeans still looked like they had were usable and in a condition for reselling. By this, they introduced collection not only for repairing services but also for physical selling in their stores and launched a second-hand section of their own brand. Realising the high demand, Nudie recently launched a batch of over a hundred pre-owned jeans online which sold out quickly and were at the time of the interview in the middle of the launch of a second batch.



4.3 estimation of the market size for pre-owned apparel in Sweden

Looking at the development of consumption patterns for apparel and shoes in general, the Swedish households have increased their consumption by 24% from 2005 to 2015 (Konsumtionsrapporten, 2016). Another detectable pattern is that online shopping for consumers is growing and the most common purchase to be made is actually apparel, along with sports equipment, events and travel tickets (Statistics Sweden, 2016).

In a report from 2013, Statistics Sweden (Statistiska Centralbyrån) calculated that the average Swedish person bought 13 kg of new textiles per year. At the same time, we disposed of over 10 kg of used textiles. The large majority (8 kg) was thrown into the waste and burned, while 2,4 kg were reused in one or the other way, with the majority going to charity. Of this, over 60% (1,5 kg) were given to charity outside of Sweden, while the rest was reused inside the country. While domestic charity constituted around 30%, the share of the second-hand market remained minor (see illustration in figure 5).

chapter 2, several Swedish reports have been written about the flows of textile waste and the management thereof (e.g. SMED, 2011), including the textiles given to charity and donated both inside and outside Sweden. Consequently, this report is aimed at investigating further these 0,3 kilograms of textiles that re-enter the market in the form of pre-owned apparel for sale. While the purpose was to quantify this market for monetized pre-owned apparel in Sweden, this endeavour has proven to be extremely difficult for the following reasons:

Amount of players

While there are only a few large actors involved in the pre-owned apparel business, there is an infinite number of small physical second-hand stores or platforms such as flea markets and online sharing groups which are impossible to quantify in an exhaustive, accurate way.

Lack of traceability

The classified online sites, which seem to constitute a large part of the market, are merely bringing together vendors and sellers. Consequently, there is no data available regarding whether exchanges actually take place and at what price items change hands.

Lack of numbers

As many businesses have emerged within the last years or have only recently started dealing with pre-owned initiatives, they often do not have any numbers yet. The management and expansion of the business leaves little time to gather and analyze information about the customers, their purchasing patterns or KPIs such as average basket size, conversion rate or customer retention. Consequently, it also remains unclear to many players who their customer actually is.

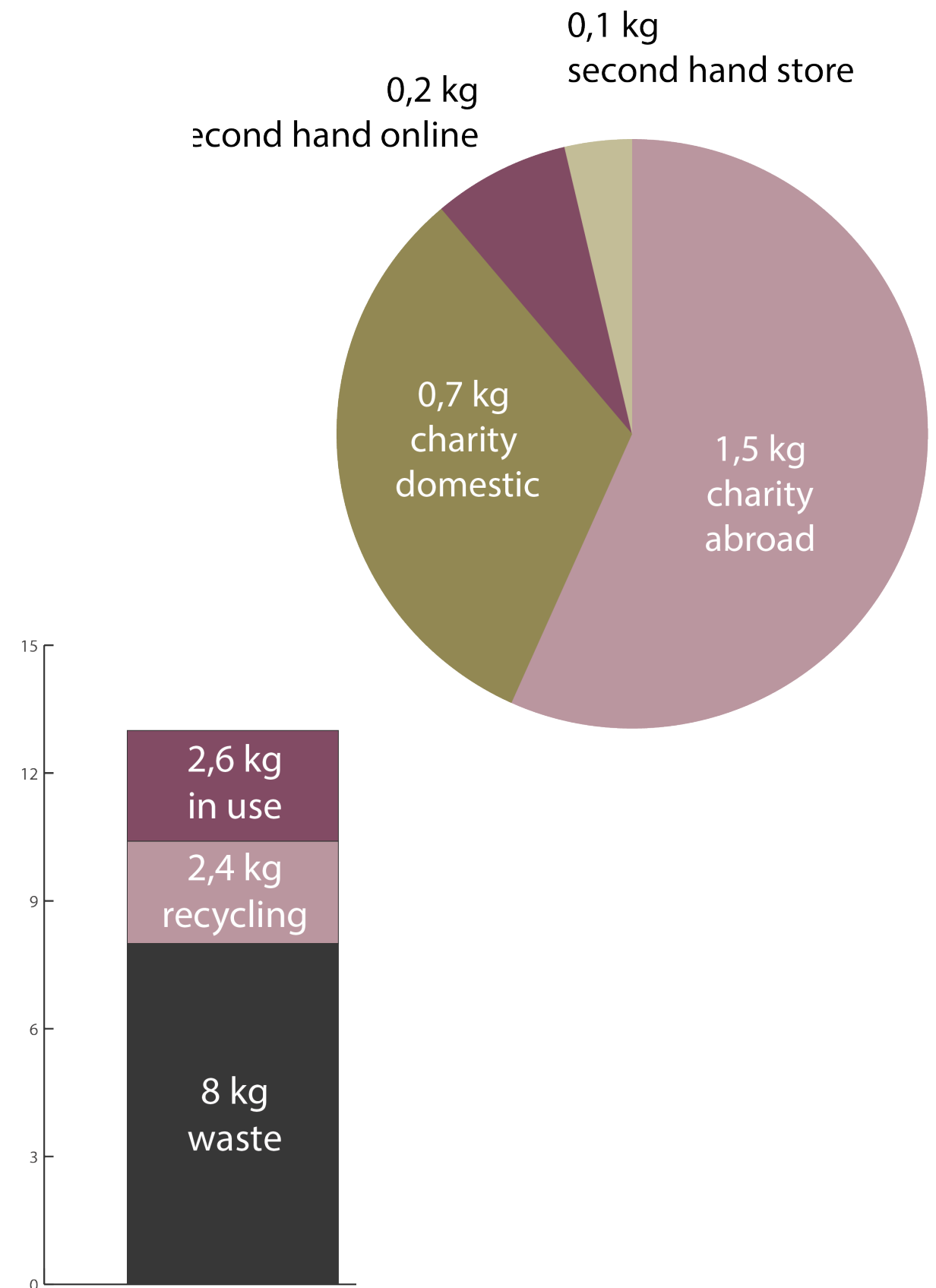


Figure 5: Textile consumption in Sweden (based on 2013 numbers)

When it comes to the monetized exchange of pre-owned apparel, it has nonetheless become clear that the market as such does not seem to be growing considerably. Instead, second-hand clothes are exchanged via diverse channels, using different underlying business models. In other words, if old clothes were sold on the flea market or in second-hand stores some fifty years ago, the same clothes today are likely to be sold via one of the online channels. Consequently, the arrival of the internet was a game-changing element in this development, which is further increased by the growing use of social media and sharing platforms. Therefore, the market for pre-owned apparel and the amount of people engaging therein has not grown as much as may have been assumed. However, for the reasons mentioned above, it is very difficult to say which of the new channels are prevalent in the Swedish market today. The illustration below should therefore be regarded as an illustrative depiction of the development of the different market shares according to the various business models identified in the section above.

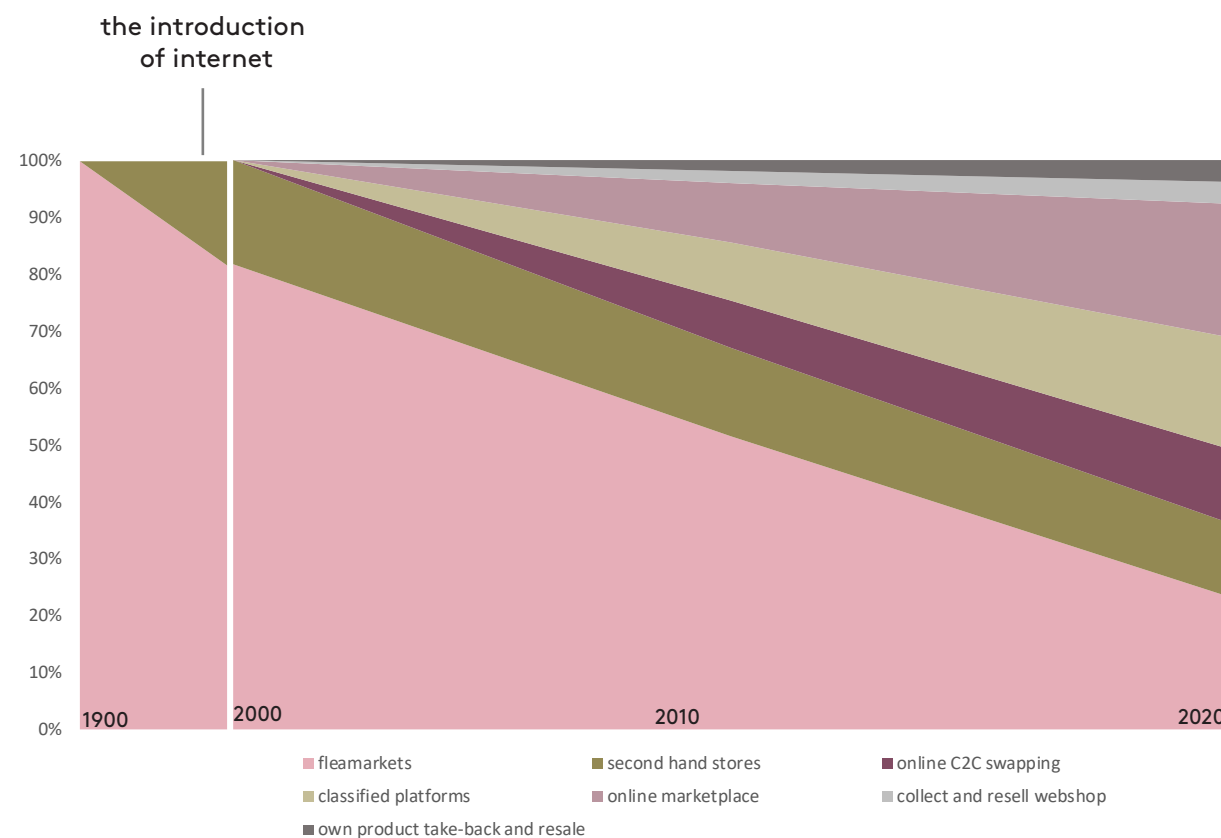


Figure 6: Development of estimated market shares according to business models over time

While the first second-hand store had opened in London already in 1899, second-hand stores in general experienced a big boom during the second world war, which considerably increased the share of clothes traded through this business model. Around the change of the millennium, the internet enabled the emergence of new online players. For instance, Ebay was founded in 1995, and Blocket was established on the Swedish market in 2001. Since then, many other business models, often built on digitalized services, have emerged. It is only possible to estimate their market share, but it has become evident that they have taken market share from prior established models such as flea markets and physical second-hand stores.

While the total (100%) should not be regarded as fixed over the years, it cannot be said that a clear trend towards an increase of the total amount of recycled textiles is discernable. This is due to various factors such as

- changes in the amount of total textiles being bought (in tonnes and money)
When regarded long-term, it is likely that the total amount of textiles bought has increased both in tonnes and monetary terms. When regarding a more short term period, this trend is not confirmed. In Sweden, 15kg of textiles were bought per person in 2008 (SMED, 2011), while the same number decreased to 12.5kg of textiles per person in 2013 (SMED, 2014).
- changes in the average active lifespan
This number is likely to have decreased considerably over the last few years, driven by the fast fashion players and changing consumer patterns. One respondent pointed out that some garments from certain fast fashion players are on average only merely worn 1.7 times before being discarded.
- changes in consumer attitudes towards second-hand buying
It is important to note that this report does not consider the consumer side, which is a clear limitation to the study (discussed further below). Many have indicated a discernable trend towards rising customer awareness for sustainability and a move towards second-hand. For example, one respondent indicated the following:

“Yes, there is obviously a very significant trend towards second-hand in the overall society. I would say that we see many, many cultural aspects that are changing with regards to these things. It’s no longer only considered to be cheap and bad quality, but you can now also hear terms such as “pre-loved clothes” and they don’t even want to say second-hand because it has a bad sound. It is pre-loved, or vintage. And many people are really proud to buy second-hand clothes because it is obviously good for the environment. Producing one pair of jeans uses 10’000 litres of water. And if you can buy a pair of jeans that is already produced it is obviously a good thing. So I would say that the awareness is really increasing.”

Respondent A

In summary, the exact amount or value of the second-hand garments traded on the Swedish market cannot be identified with certainty. The consumption pattern of the Swedish society indicates a clear increase of textile product purchases over recent years. At the end of their active lifespan, the large majority of those garments ends up as waste, while a smaller part is donated to charity. Both those textile flows have been analyzed and measured in more detail, while little emphasis has been put on the investigation of the small percentage of garments traded on the second-hand market.

While the importance of extending the product lifecycle has gained more awareness in Sweden, we do not believe that the amount of garments on the second-hand market has increased considerably. Instead, a change of trading channels has taken place due to the emergence of new business models with an overarching trend from physical market places towards online platforms. At this stage, it is therefore more about establishing a better understanding of those businesses and their practices, before a quantification of the market can be undertaken, as many businesses are so new that they find themselves at a lack of more exact numbers.

'a change of trading channels has taken place due to the emergence of new business models, with an overarching trend from physical market places towards online platforms'



5. the potential of pre-owned apparel in Sweden

5.1 observed patterns

At this state of the market, there are certain identified patterns that are important to note that influences the advancement and potential of the pre-owned market.

From the interviews, some segments and categories have been found to have specific potential when it comes to pre-owned distribution. These patterns are that the women's market is significantly larger than the men's market but also the kids market as well as the pre-owned premium brands have higher demand than pre-owned fast fashion brands.

"It would work with men stuff as well. We used to have a little men's corner, but we took it away. It feels quite feminine here and I think it's always difficult to mix men's and women's clothing."

Respondent B

Pre-owned market is larger for women than for men

The findings showed that the market for pre-owned currently is significantly larger for women than for men. Coherent with this, a study by Tradera and Avfall Sverige in 2017 showed that 46% of women in Sweden has bought second-hand clothing the last three years whilst the fraction of men only accounts for 27% (Avfall Sverige, 2017). Naturally, the distinction in fraction also follows when it comes to distributing pre-owned clothing for reselling where 10% of women do this but only 3% of the men.

This gets especially interesting since some of the companies distributing pre-owned clothing argue that premium timeless brands are those that meet the most demand. Hence, by analysis, men's fashion is in general more timeless and should thus be seen as ideal to redistribute as the clothing better maintains its trendiness over time. However to complicate this even further, the case could be that men, since often having more minimalistic wardrobes, have less of an incentive to replace clothing in their wardrobe and therefore have a lower item turnover.

The above outlined argumentation is of course brief analysis based on the consumer insights gotten from the companies but is indeed important for further understanding of pre-owned apparel sold at the Swedish market. While the consumer perspective is outside the scope of this study, the fact that clothing targeted towards one gender has such a significant larger market is deemed too important to disregard and further investigation of this is urged in order to fully understand the potential of pre-owned.

In order to grow the market, demand from the customers is a prerequisite and to achieve maximal potential this cannot be limited only to one gender. Meaning that the potential for pre-owned women's clothing is currently determined to be significantly higher than it is for pre-owned men's clothing and means must be taken in order to increase the men's market.

Pre-owned market is larger for women than for kids

On the same note as previously mentioned, pre-owned children apparel has interestingly not been found to have any significant market share. The trend that can be determined is that players currently active within distribution of pre-owned kids apparel all state that they are trying to move away from this segment. The reasons for that is stated to be lack of demand which is argued to be a consequence of not being able to compete with already cheap kids clothing in ordinary fashion shops but also the lack of profitability potential on cheap items.

It could possibly be that kids clothes are exchanging owners outside the monetized market through family and friends. This means that there is highly unlikely that the monetized pre-owned kids sector will be able to drive the fashion industry towards more sustainable practices.

Premium brands are easier sold and have a higher demand

As many of the other aspects of the market, it is hard to generalize what type of pre-owned item that is specifically relevant for reselling. One take away that is consistently argued by the different players is the prevalent higher demand for branded clothing of high quality or for special editions of low supply. Additionally, items such as outerwear and expensive sportswear is several times argued to be of high demand from the companies perspective.

By analysing this, once again a deeper dive into the consumer behavior and psychology is needed. However, one perspective brought up by several interviewees is that branded items are of a higher bargain for the customer and that the price difference often is significant from purchasing the same item not used. Even though this perspective is consistent among the businesses, research focusing on the consumer incentives behind purchasing from different business models is needed in order to scientifically be able to draw any scientific conclusions of why this is the case.

Another relevant pattern that has been identified which is contributing to enabling more potential for an increased pre-owned market is the concept of replicating the fashion industry's shops and selling pre-owned clothing as they were new.

Selling used clothes as they were new is a new model with growth potential

Interestingly, one of the findings from the business perspective of pre-owned is that many of the newer types of business models for pre-owned try to replicate the customer experience from purchasing non-preused clothing. Hence, in these strategies measures are taken to replicate the cleanliness and recreate the same customer experience of purchasing ordinary clothing. Therefore, some of the newer concepts started have designed their physical stores or web-shops to recreate first purchase of an item. This is with regards to scents, price and security tags, interior, service or online experience. In the physical stores, stories have been told by more than one actor that customers sometimes are unaware that the clothing has been pre-owned and has for example asked for more sizes in the items. Pursuing such a tactic requires the application of traditional apparel commerce strategies on the selling of pre-owned. From the sample of the study, application of this strategy has mainly been detected where previous experience of the fashion industry can be found with the founders or managers.

By replicating the traditional model, actors have managed to generate high turnover in the items in the store. However, important to note is that above-mentioned replication requires specific sorting to generate a desirable assortment and therefore makes the business model demanding with regards to human capital. Due to the human resource intensity of these models, an atomization of sorting potentially needs to be made to generate profitability. This since the costs of employment is seen to be too high in order to generate profitability and have a satisfying amount of employees to make the business work. This makes it especially important to then try to replicate ordinary fashion shops when it comes to the high turnover of items and to sell volumes to achieve profitability. However, a potential atomization implies that the assortment cannot be hand picked to ensure value to the extent that some business actors today pursue.

The quality and brands of the assortment is from the companies' side deemed as one of the key factors for the businesses to be able to resell used clothing as above mentioned. This naturally requires a screening method that regards what the customer wants and builds on the experience of previous interaction with customers. Consequently, the experience and knowledge of current trends and what will sell is deemed important according to the players and is one of the important factors to make the business offering to customers up-to-date. The interviewees of the newer business models of second-hand selling also convey that they are not trying to compete with the more traditional second-hand players but rather with the ordinary fashion players and existing players in the industry. The vision is that it should not be a question of which channel to purchase pre-owned but rather which channel to purchase clothing and therefore the clothing must be conveyed and sold as if it were new.

5.2 observed drivers and obstacles affecting the potential of pre-owned market

Additional to the identified patterns at the pre-owned market, there are also drivers and obstacles that is strongly influencing the future potential of development. Findings show that the main driver of pre-owned apparel retailing and redistributing is the revenue but also that the cultural context of Sweden may be strongly influencing the demand driving this revenue. This section will also elaborate on how the profitability on the different models can be affected by the costs and supply chain management in order to understand what future potential there is for actors to enter or continue to expand current businesses involving pre-owned apparel.

Revenue is the main driver

As previously argued, Morioka et al (2016) conveys the importance of being able to generate revenue and that this is the reason why companies often fail to incorporate more sustainable practices. Coherent with this, all the interviewees except for the non-profit organization argue that their incentives behind entering this market narrows down to the business case. Meaning that they all have the belief that this industry has market potential to capture in order to generate revenue.

The business case they perceive depends on their business model and to what extent they are providing the components of the supply chain required to distribute used clothing. While their practices are providing a relatively more sustainable option of purchasing apparel, the main goal is to generate revenue by answering to a customer need. Even though this is the main argument of entering, it is indeed acknowledged that the need to get rid of clothing not used anymore is more outspread than the willingness to buy pre-owned. This consequently conduce difficulties when it comes to supply chain management with regards to supply and demand that will be further discussed in a section below.

Whilst the finding that business models interacting with pre-owned are not necessarily an emergence from philanthropic incentives is interesting, the question if the companies manage to create the business case they strive for still remains.

“Sweden is very much a country that follows famous people and influencers. And Swedish people want to be like everyone else.”

Respondent C

The cultural context of Sweden is both a blessing and a curse

As in any market, the demand is seen as a specifically important revenue driving force. One interesting notion that is mentioned several times is that the cultural aspect of Sweden leads consumers to strive to be like everyone else. This is argued to make people want to buy what everyone else buy which is the latest trends but also make consumers willing to follow influencers often used as ambassadors for marketing of pre-owned collect and resell sites. Also this is outside of the scope of the study as it relates to the consumer psychology. Yet, the willingness to buy pre-owned and its relation to cultural context is urged to be researched in the future in order to fully grasp the pre-owned market drivers in each country for potentially affecting the fashion industry as a whole towards more sustainable practices.

Profitability in the business models involved in pre-owned apparel

Given the fragmented nature of business models acting on the market for pre-owned apparel the profitability of the market itself is not generalizable. The profitability of the market should be deemed as a prerequisite for the potential growth of the market for pre-owned as this is the incentive behind players acting on the market. Turning back to the question if there is any profitability taking place, each business and category of business model needs to be analyzed as an individual case. An easier simplification can be made by narrowing the focus of analysis at the business models that themselves handle the volumes of pre-owned apparel.

What the findings have shown is that the infrastructure and management of such is costly and intense in human capital. This mainly comes down to the logistics needed of the businesses but also the demand posed by consumers. While this study did not get access to the specific numbers needed of the companies within this field to draw any scientific conclusion that could make any differentiation between the different businesses. However, it is clear from interviews that the profitability of businesses handling many components of the supply chain in-house mainly comes down to the intensity of costs in the supply chain management that will be further discussed below.

Supply chain difficulties of pre-owned

One of the most prevalent challenges that can be determined as a consequence of the newer business models that handle the full reselling for the customers is the supply chain management. Previously discussed, expertise and knowledge of customer's demand is one of the key elements in generating requested assortments.

Additional to the expertise needed, it is also costly to manually handle the sorting. Aside from the cost aspects, it has been mentioned in interviews that there is a clear difficulty in handling the inflow of clothing, both when it concerns volumes but also quality. Hence, even if a goal is set to sell a certain amount of a specific category of apparel it is hard for the businesses to decide how much inflow of that certain item they will be given. Additionally, some items are better sold by seasons such as jackets and currently no player has the logistics to keep seasonal stock of apparel for later distribution.

5.3 potential for pre-owned market to drive the industry towards more sustainable practices

All the above mentioned aspects are important to consider in order to grasp the emergence, growth and potential of monetized redistributing of pre-owned apparel as well as its potential impact on the fashion industry as a whole. When answering if the pre-owned market has the potential to drive the fashion industry to more sustainable practices we first need to understand if the market for pre-owned apparel is growing and if this is cannibalizing on the ordinary fashion companies businesses but also in what ways the traditional players are responding.

Exchanges of pre-owned apparel takes place through new channels but the phenomena of reuse is not necessarily growing

From the analysis, it has been clear that the business models that involves pre-owned apparel have followed an evolution where the flea markets has turned into online marketplaces. Seemingly, the monetized market is not necessarily growing but the channels where pre-owned apparel is distributed and what stakeholders that benefit from the exchange has shifted throughout the years. One recent example of this is the previous common concept of 'Bloppis' where influencers themselves organized flea markets, this has instead been commercialized and the same influencers are now users as well as marketing ambassadors for different online collect and resell web pages.

Only traditional players with sustainability at their heart seem to respond to an urge of larger pre-owned market

When screening the Swedish market for traditional players that have incorporated aspects of pre-owned clothing in their own business model almost all the significant players are actively collecting old garment but only a handful are directly engaging in redistributing these items. Amongst the companies that actively engage in the reselling of their own brand they all have some clear common denominators making them pursue such tactic that is separated from profitability. Hence, all the detected companies are brands classified as premium brands with a higher price level as well as are actively coming from sustainability perspective that minimalistic and timeless design is at the core of the business model. These common factors in their value proposition to their customers also rhymes with the segments that are deemed to have potential which from above outlined analysis is seemingly women clothing of premium brands.

As an exception to this, one fashion brand categorizing themselves as fast fashion are experimenting with strategies of remanufacture and repurpose by materials of items not previously used but without any active lifespan and willingness to wear. Even though this does not relate to pre-owned apparel it actively contributes to prolong the lifespan of apparel. However, it should be noted that this case is a clear exception as other players state that it is not their role at the market to engage in reselling of pre-owned apparel and some even state that it is outside their business model to contribute to the collection. Hence it is argued that this role need to be filled by a complementary actor on the market and that the pre-owned fashion industry is clearly separated from the ordinary fashion industry.

Pre-owned apparel do not seem to cannibalize on the ordinary fashion industry

Even though it is conveyed that many of the newer actors working to redistribute and sell pre-owned are aiming at competing with the ordinary traditional fashion players, this seem to not be the case. With exception of the above mentioned players with sustainability at their core, not one traditional player seem to find second-hand to be cannibalizing with their offering. This naturally contributes to an unwillingness to contribute to involvement in pre-owned apparel as this is seen not to be within the scope of their businesses and therefore is disregarded. Consequently, this leads back to the question if the emergence of new players and potential growth of the pre-owned market can drive the fashion industry to more sustainable practices.

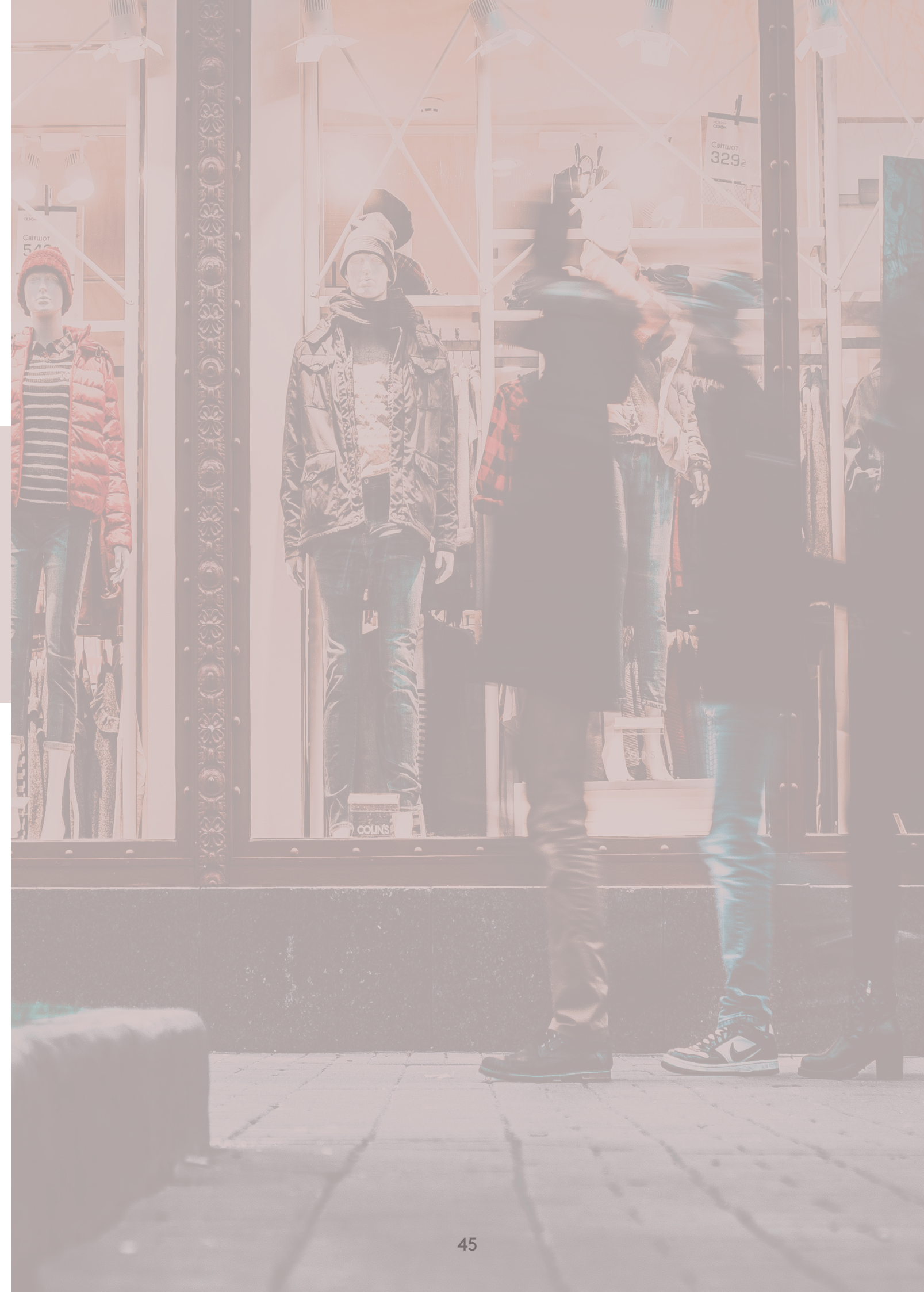
“I think all along there has been this fairly large market of second-hand clothes that I just hadn’t been aware of, and I think it is growing. It has to be growing for our business case to make sense, and I think it will grow and is growing but I want it to grow faster”

Respondent D

The pre-owned market is not affecting the ordinary fashion industry as of today, but might have potential to in the future

Findings of the study conveys that the pre-owned market mainly has shifted in its channel. While some customer segments and brands are more relevant for pre-owned apparel, the general fashion market does not show the same potential. Only a few of the traditional players are seen to respond to the pre-owned market in an active way and therefore it can currently not be seen to be driving the general market to more sustainable practices. However, for premium brands with timeless design the pre-owned fashion industry cannot be disregarded but should instead be acknowledged for growth potential redistributed through the right channels. Hence, while not having a significant impact today from the business model perspective, it might be able to generate such if the demand side changes.

Moreover, if buying pre-owned become more common and popular, some brands may experience a direct competition that will shift their offerings and business models towards the pre-owned market.



6. conclusions

6.1 discussion

Setting out to understand the market for re-used apparel in Sweden, we found that there is a shift in channels for reselling previously owned apparel. New emerging channels and business models were identified that challenge or complement the established non-for-profit market actors. However, if this shift results from an overall market growth or due to increased awareness and entrepreneurship around the potential of creating value of discarded clothes is hard to determine.

The most evident shift the last decades results from the introduction of internet, providing a new platform for the way we do business. Online market places such as Tradera, as well as online shops and social media platforms are providing consumers with a broad range of options to both sell and buy pre-owned clothes. We propose that in the future these new form of online second-hand channels will continue to grow at the expense of the traditional physical second-hand markets such as flea-markets and charity.

We also found that many of the new business models, such as pick-up and re-sale as well as mixed models offering both new and pre-owned, are fairly new and difficult to evaluate in terms of business potential. The volumes are up to now small in relation to the sales of new and the value propositions are still on an experimental phase to be able to see more stabilized and profitable business models. In addition not enough consumers are yet active in the pre-owned market to be able to significantly make an impact on fashion consumption.

All the interviewed companies state that they perceive a clear demand from customers to help them "get rid of things", and that the monetary incentive to do so does not necessarily lead to a guidance on what business model/service to apply. Rather, the interviewed organizations suggested that it was convenience that was decisive of which player a consumer handed their used apparel to. This is once again not confirmed from the consumer side as this was not in the scope of the study. However, the incentives from consumers to engage in different collection services with and without monetary incentives are surely an interesting area for further research in order to understand the viability of the different models.

Throughout the study it has been argued that Swedes has a will to be more environmentally friendly in their purchases of clothing. Seemingly, there is a lack of engagement when it comes to actually put this will in practice and choose pre-used shopping over buying new clothes. This finding confirms previous studies (Steensen Nielsen & Gwozdz, 2017). It is therefore unclear if the public awareness is really the factor that will make second-hand shopping flourish as consumers today seem to have high awareness about the environmental deficit of the fashion industry.

Even though the public awareness about the environmental benefits of second-hand shopping in relation to ordinary shopping is evidently high, there is a lack of engagement. This makes the players to continuously seek what aspects that are needed to make the consumers to choose pre-owned apparel over new. The concept of making the apparel appear as new by replicating an ordinary fashion shop seem to be one successful way of trying to make second-hand shopping more attractive. However, as previously discussed, such model requires extensive human capital when it comes both to man power and experience which makes the entry barrier high for entrepreneurs without a background in fashion and retailing.

The recent emerged business models make the market itself hard to grasp which follows the complexity and interdependencies of the different levels of distribution and the supply chain. Compared to ordinary fashion players with a defined linear supply chain, the supply chain of second-hand players are complex since the consumers are also suppliers of apparel, so called prosumers, and builds on re-circularity thinking. This makes the business models that involve in-house handling of second-hand apparel more logistics companies than fashion companies. The costs of collecting, sorting and making attractive offerings are still high in relation to the potential value that can be extracted. How these new players will evolve in the market and how the market will change over the coming years is thus hard to speculate in. However, we have throughout the study seen a greater interest, from both the established and the newer players engaged in pre-used, why we expect continued efforts to find business models that capture both customer and business value in pre-used apparel.

The fact that some of the fashion industry players start to engage in the after-life of their products is an interesting phenomenon that will influence the supply chain logic of a traditional fashion player. However, this is still only done by less than a handful players and if more of the traditional fashion brands will adopt or change their business models according to this new logic, it has the potential to change the market of second-hand. At this stage, second-hand solutions does not seem to attract the existing players but if pre-used gain significant market share, the whole fashion industry will certainly adapt. The questions remain if pre-used really is suitable for all apparel or if premium apparel and women's wear will continue to dominate the second-hand market in the future.

6.2 implications for policy and industry

The actors in the market seem to perceive the policy makers to act rather passive when it comes to assisting this market to grow and therefore the actors urged for more policy engagement. There are several ways for policy makers to stimulate the second-hand industry and this is said to have large potential impact for the future of the second-hand market in Sweden.

A recent report from Mistra Future Fashion, evaluated potential policy instruments and found four favorable instruments that could potentially be implemented and generate a large impact (Watson et al, 2017). These four suggested instruments are: (1) Reduced VAT for reuse, sharing, second-hand, repair, leasing, (2) Support for second-hand in central shopping malls, (3) Start-up transition funding and government supported knowledge hubs as well as (4) Wage subsidies targeted at these models.

These policies also go hand in hand with the findings of this study as the intensity of human capital to make the business models run was brought up as one of the main difficulties with some of the business models with in-house logistics of apparel. In addition, possibly a new labeling scheme to encourage the eco-conscious segments of the market could also be explored.

6.3 implications for research and further research

Throughout the study, the importance of understanding the consumer and the demand side has been emphasized. Therefore, research on the consumer perspective of pre-owned is suggested in order to understand how to stimulate the demand. Why do consumers purchase or not purchase pre-owned apparel? What will make consumers consider pre-owned? Another interesting area to look into is the attitude to second-hand depending on which segment a consumer belong to as the findings showed that second-hand for men but also kids currently have a significant smaller market share.

Another important area for research is what motives consumers have to hand in or give up on their apparel. Is it purely by philanthropical reasons or is there a need to stimulate such action? This could increase the understanding of if and what incentives that are suitable to offer in return for consumers participation in the pre-owned market.

In addition, a study developing and building on the findings from this report is relevant for a deeper understanding of the business potential of pre-owned apparel. For example, a narrower focus on the profitability potential of the different business models would be interesting as well as determining the seemingly diverse set of value propositions put forward.

6.4 limitations


Naturally, the explored companies are only a small sample of the market and the findings are hence based mainly on their perspective and perception of the market in combination of current research and statistics. As previously mentioned, there is an important inter-play between the supply and demand as the customers also partly act as suppliers which makes the lack of consumer perspective an important limitation to consider.

Another limitation is the statistical reporting of textiles, which often is comprised and therefore statistics of separate categories such as apparel or bed linen might not have been fully separated in some of the numbers used in this report. In addition we lacked recent data on collected textiles and distribution of how much goes into household waste versus to re-use or recycling. The available published data is collected 2013 (Statistics Sweden, 2015) and several in-store take-back initiatives, as well as new business models for take-back as described in this report, have been launched since, which likely have influenced the volume distribution between these categories. There is a need for getting up-dated statistics that better represent the current base-line of household's textile post-use behavior .

6.5 future outlook

If this market will grow in the future is still unknown, but by installing policy instruments the market can get a push in the right direction. However, if policies will shape the market enough to significantly stimulate the demand needs to be determine by a deeper understanding of the demand side. Although it might sound a bit simplifying that policies would be able to significantly affect a market, there is one concrete example of how purchasing behavior can change as consequence of such. Recently, an initiative called one bag habit was launched by three large fashion players in Sweden with the purpose to decrease the usage of plastic shopping bags (One Bag Habit, 2018). Hence, the three players started to add a fee for the bags and saw an immediate decrease in number of bags. The impact of this initiative showed significant result and H&M reported that only six months after launching the initiative they had lowered the plastic bag consumption by 51% compared to the same period last year (H&M, 2018).

This case emphasizes how large impact policies can potentially have in driving the market forward and if similar measures were taken to encourage more second-hand shopping the market might grow unexpectedly fast. Therefore, it is difficult to determine how this market will develop. With new business models the market has the potential to change and grow significantly the coming years. The only thing that we do know for certain is that consumers need to be increasingly willing to buy pre-owned in order for the market to grow.

A woman in a dark dress is standing in a clothing store, looking at items on a display table. The store is filled with various clothing items, including jackets, shirts, and bags, hanging on racks and shelves. The lighting is warm and the overall atmosphere is clean and organized.

'the most evident shift the last decades results from the introduction of internet, providing a new platform for the way we do business'

'the interviewed companies state that they perceive a clear demand from customers to help them "get rid of things'

'even though the public awareness about the environmental benefits of second-hand shopping in relation to ordinary shopping is evidently high, there is a lack of engagement'

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8 appendix

Appendix 1 – Pool of 36 organizations for further investigation

Non-profit organizations

Myrorna www.myrorna.se

Stadsmissionen (Remake) www.stadsmissionen.se

Röda Korset www.redcross.se

Erikshjälpen www.secondhand.se

2nd hand platforms

Blocket www.blocket.se

Tradera www.tradera.se

Sellpy www.sellpy.se

Usedby www.usedby.com

Varié www.varie.se

2nd hand stores

Arkivet www.arkivetsthlm.se

Lisa Larsson www.lisalarssonsecondhand.com

HUMANA www.humanasecondhand.com

Adornment www.adornment.se

Beyond Retro www.beyondretro.com

Emmaus www.emmausstockholm.se

Judits www.judits.se

Boutique Finest -

Fast fashion brands

H&M www.hm.com

Lindex www.lindex.com

Kappahl www.kappahl.com

Dressmann www.dressmann.com

Gina Tricot www.ginatricot.com

Cubus www.cubus.com

Premium brands

Filippa K www.filippa-k.com

Nudie Jeans www.nudiejeans.com

Residus www.residusofficial.com

ETON www.etonshirts.com

ACNE Studios www.acnestudios.com

Peak Performance www.peakperformance.com

J. Lindeberg www.jlindeberg.com

Houdini www.houdinisportswear.com

Asket www.asket.com

Mini Rodini www.minirodini.com

'Homme Rouge www.lhommeorange.com

Rental companies

Curatorz www.curatorz.com

Sabina & Friends www.sabinaandfriends.se

Appendix 2 – Companies selected for interviews

Non-profit organizations
Stadsmissionen (Remake)

2nd hand platforms
Sellpy
Tradera
Usedby
Varié

2nd hand stores
Arkivet

Fast fashion brands
Lindex

Premium fashion brands
Eton
Peak Performance
J.Lindeberg
Mini Rodini
Nudie Jeans

Rental companies
Sabina & Friends

Others
IVL (Swedish Environmental Institute)

Appendix 3 – Interview Guide

Introduction:

- Purpose of study and introduction to the topic

Part A: General questions:

- What is your role at the organization and what does it entail?
- How would you describe your company's business model?

Part B: Qualitative questions:

- Who is your typical customer?
- What are the motives of your customers to buy second-hand?
- How do you set prices?
- What quality does your clothing belong to (vintage, premium brands, fast fashion...)?
- Why did you decide to focus your business on this specific category?
- Do you see a difference in the growth between the different categories such as men's fashion and women's fashion?
- What future do you see for the second-hand clothing market?
- Where do you see your organization and your business model in the future?

Part C: Quantitative questions:

- How many customers do you have (within second-hand textile)?
- In case of mixed models: What is the fraction of the second-hand business?
- What is the average purchase basket (pieces and value)?



Mistra Future Fashion is a research program that focuses on how to turn today's fashion industry and consumer habits toward sustainable fashion and behavior. Guided by the principles of the circular economy model, the program operates cross disciplinary and involves 60+ partners from the fashion ecosystem. Its unique system perspective combines new methods for design, production, use and recycling with relevant aspects such as new business models, policies, consumer science, life-cycle-assessments, system analysis, chemistry, engineering etc.

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