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Circular Economy in the Clothing Industry

Identification and evaluation of circular opportunities for MQ Retail

Master of Science Thesis

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SANDRA JOHANSSON

SOFIA SELIN

Department of Technology Management and Economics

Division of Innovation Engineering and Management

CHALMERS UNIVERSITY OF TECHNOLOGY

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SANDRA JOHNSON
SOFIA SELIN

Tutor, Chalmers: Bengt Järrehult
Tutor, company: Peter Karlsson

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Sandra Johnsson and Sofia Selin

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Department of Technology Management and Economics
Division of Innovation Engineering and Management
Chalmers University of Technology
SE-412 96 Göteborg, Sweden
Telephone: + 46 (0)31-772 1000

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Abstract

Through different strategies, companies are increasingly incorporating sustainability aspects in their business models. This enables them to contribute to a sustainable development and simultaneously leverage opportunities following changing customer behavior. One trend regarding sustainability that has gained plenty of attention lately is the *Circular Economy*. As the world's middle class expands, the demand for resources increases, which leads to a situation where the world's non-renewable resources are used to depletion. This motivates a transition from today's linear economic model to a circular model, where resource loops are tightened and resources are recovered at the end-of-life. One industry, that recently has gained attention regarding efforts to adapt to the circular economy, is the clothing industry.

This thesis aims to identify and evaluate opportunities for the clothing retailer MQ Retail to adapt to the circular economy. Moreover, it also aims to discuss how a process based on the principles of Lean Customer Development can be used when identifying and evaluating opportunities related to the circular economy. In order to fulfill the purpose an iterative, customer-focused research process was followed. The research process included a situation assessment, a trend analysis, customer interviews, and an assessment of other actors' initiatives related to sustainability and the circular economy. Finally, the findings from the different steps were collectively analyzed in order to identify and evaluate opportunities for MQ Retail.

Potential opportunities were identified in the following areas; efforts regarding actions in the design phase, prolonging the lifecycle of clothes, garment collection, facilitating reselling, and other efforts. MQ Retail is advised to further research these areas through formulating and testing hypotheses, continuing the Lean Customer Development process.

In addition to the identified areas of opportunities, three factors have been identified as crucial for initiatives regarding the circular economy: First, initiatives regarding the circular economy require changes in the company's business model as new activities are added and others are refocused. Second, adopting initiatives regarding the circular economy affect actors along the entire value chain, why this is important to consider for understanding the total effect of each initiative. Third, it is important to aim to bridge the existing values-action gap regarding consumption's effect on sustainability, in order to gain competitive advantage from initiatives in line with the circular economy. However, educating and involving customers affect other actors' ability to benefit from related initiatives as well, through externalities. Thus, collaboration among actors within the industry is beneficial, if not essential.

However, as with any trend it is impossible to say with certainty how the trend of the circular economy will progress. But, since the wider concept of sustainability underlies the circular economy, and the focus on sustainability is predicted to remain strong, this motivates a focus on the circular economy.

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Finally, the completion of this master's thesis also marks the end of our five-year period as students within the Industrial Engineering and Management Program at Chalmers University of Technology. Therefore, we would also like to thank everyone who has been a part of this journey; friends, family, professors, and many more. It would not have been the same without you.

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1 Introduction

This section aims to present the background, the purpose and the research questions of this thesis. This is followed by a presentation of the scope and the outline of the thesis.

1.1 Background

In 1987, the World Commission on Environment and Development defined sustainable development in the report *Our Common Future*, as the following:

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs¹.

Several years after this definition was coined, these issues still remain and many actors are struggling to find viable solutions for how to support a sustainable development. But, there are external factors that complicate the possibility of a sustainable development. The world population is increasing, along with the average gross domestic product. The middle class is expanding and is predicted to increase with three billion people over the coming decade. Even though these external factors are favorable to economic growth, they are simultaneously imposing limits to it, as they are the key drivers of resource demand (McKinsey 2014). This rising global affluence creates a demand that many non-renewable resources cannot keep up with.

The linear economic model that characterizes the economic climate of today, following a *take-make-dispose* pattern, is contributing to resource depletion, exposing companies to risks associated with volatile and increasing resource prices (McKinsey 2014). The linear model also leads to vast amounts of waste, which is not only a problem for individual companies but for society at large. In order to ensure resources for future demand and to reduce environmental impact, the economic model needs to change (Accenture 2014).

The concept of the circular economy entails that growth is disconnected from scarce resources. In 2010, when the Ellen MacArthur Foundation, further described in Appendix 1, was established, the concept became more widespread (McKinsey 2013a). However, even though this concept has gained increased attention over the past years, several industries still face problems in adapting to the circular economy. Many firms' strategies, structures and operations are based on the linear approach to growth. Any change in strategy can have an immense impact, not only on the company itself but also on the network within which it operates (Accenture 2014).

¹ WCED (1987) *Our Common Future. The World Commission on Environment and Development*. Page 41. <http://www.un-documents.net/our-common-future.pdf> (1 April 2015)

But, as future regulations might force companies in the circular direction and many firms become cognizant of the circular model's potential, companies are eager to analyze how this circular model could be incorporated innovatively into their business plan (Hedström 2014).

The adaptability to, as well as the optimal solutions for, the circular economy varies by industry depending on the industries' characteristics. The textile industry has lately garnered the media's attention through for example recycling events and close-the-loop efforts. Despite the fact that various obstacles exists, companies in the textile industry are starting to move in a circular direction, and there are multiple examples of companies changing their business models to be better suited for the circular economy (Palm 2011 ; Accenture 2014). In the future, more companies in the textile industry might be forced to take actions as circular principles become more widely adopted, laws and regulations are instituted, and customers are becoming increasingly aware of related issues.

Moreover, even though many benefits of the circular economy is described in literature, there are few practical examples of how companies can identify and evaluate opportunities related to the circular economy. Therefore, this thesis aims to shed light on how companies in the textile industry can identify and evaluate opportunities related to the circular economy, both in general and more specifically for the clothing retailer MQ Retail, hereafter referred to as MQ.

Additionally, the customers' increasing awareness of sustainability issues has not yet lead to a wide-spread change in behavior, and substantial values-action gaps as well as knowledge gaps exist. Thus, it is important to involve the customers at an early stage, for assessing their preferences and being able to tailor offerings and communication accordingly. Therefore, principles from Lean Customer Development, well known for its iterative process based on learning from customers, are applied in order to fulfill the purpose of this thesis, which is further described in the next section.

1.2 Purpose

The purpose of this thesis is twofold. First, it aims to provide a foundation for MQ's sustainability strategy development, focusing on enabling the company to formulate short-term and long-term strategies regarding how to incorporate principles of the circular economy into their business model. Second, it aims to discuss how a process based on the principles of Lean Customer Development can be used when identifying and evaluating opportunities related to the circular economy.

In order to fulfill this purpose, the following research questions will be analyzed:

- *Why should MQ incorporate ideas of the circular economy into their business model?*
- *What can MQ do to incorporate the ideas of the circular economy into their business model?*
 - *Who should be involved in the process?*
 - *When should MQ incorporate certain solutions into their business model?*
 - *How can MQ incorporate certain solutions to their business model?*
 - *Why should MQ incorporate the certain solutions?*
- *How can other actors approach the process of identifying and evaluating opportunities related to the circular economy?*

1.3 Scope

This thesis focuses on how MQ can adapt to potential future requirements and regulations regarding the circular economy and how the company can exploit related opportunities, within the Swedish market. The analysis is conducted on a strategic level and areas of interest are identified, but left for the company to investigate further. Furthermore, an approach based on the principles of Lean Customer Development, suitable for other companies in similar circumstances regarding how to identify and evaluate opportunities, is discussed.

The examination is mainly focused on the clothing industry. For the purpose of this thesis, the clothing industry is defined as including businesses related to the various stages in clothing manufacturing as design, production and sales, from fibers to garments (European Commission 2014a). The clothing industry is assumed to be a subcategory of the textile industry, why this term is used when applicable. Further, regarding when to implement the opportunities that will be proposed, this will be discussed in short-term and long-term perspectives. A short-term perspective is here defined as less than two years, while a long-term perspective is defined as from two to ten years in the future.

1.4 Outline of the Thesis

The thesis starts with a literature review, providing an overview of literature related to the research questions. Next, the methods for the research underlying this thesis will be presented. Thereafter, an overview of MQ's internal and external situation is provided, followed by the empirical findings. Then, the analysis of the findings is presented, followed by the conclusions. The outline is shown in Figure 1 below, together with the related research questions.

Why	Chapter 1. Introduction <i>Explains the purpose and the relevance of the study</i>
How	Chapter 2. Literature review <i>Presents related literature</i>
How	Chapter 3. Methodology <i>Explains the research strategy, process and methods</i>
What, when	Chapter 4. Assessment of MQ's Situation <i>Describes internal and external factors affecting MQ's opportunities</i>
What, who, when	Chapter 5. Empirical findings <i>Presents the findings from interviews and data collections.</i>
What, who, when, how, why	Chapter 6. Analysis <i>Analysis of identified opportunities</i>
What, who, when, how, why	Chapter 7. Conclusions <i>Recommendations</i>

Figure 1 The outline of the thesis

2 Literature Review

This chapter aims to review and present existing literature regarding topics related to the research underlying this thesis. As this thesis is focused on the circular economy, the principles and background of this concept is described. Further, as one of the research questions regards how circular principles can be integrated into MQ's business model, Osterwalder's Business Model Canvas is described. In this thesis, the Business Model Canvas is used for mapping MQ's business model as well as to illustrate how the business model is affected when implementing opportunities related to the circular economy. Additionally, examples of business models that are suitable for the circular economy are described to provide examples of how companies can capitalize on the circular economy.

Thereafter, the current end of life treatment of textiles in Sweden is described to provide an overview of the current status as well as obstacles that need to be overcome for effective and efficient handling of textile waste. This is followed by an overview of milestones and potential future regulations regarding related topics, aiming to provide understanding regarding how these might affect the future development of the circular economy and handling of textile waste. Thereafter, the Gartner Hype Cycle is described, as this will be used for assessing the trend of the circular economy. Finally, the principles of Lean Customer Development are described, since these principles are considered during the research process.

2.1 The Circular Economy

Circular economy principles are quite simple to understand: closing the loop by reusing, repairing, remanufacturing, selling services rather than goods, either in a usage-based service format or an integrated solution delivering a particular result².

The statement above portrays the foundation of the circular economy, which recently has gained growing attention worldwide. Companies and organizations are realizing that the current waste of limited resources, which characterizes the linear economic system, is not sustainable. The circular economy has potential to increase the value of the global economy by creating value through longer lasting resources, liquid markets where products are shared or traded, longer lifecycles, and linked value chains where zero waste is generated (Accenture 2014).

A shift towards a circular economy where growth is decoupled from scarce resources can reduce waste and provide a path for companies to grow and innovate. Only a decade ago this shift seemed impossible, but today it is a viable option for companies due to advancements in technology (Accenture 2014). The circular economy is also further supported by shifts in customer behavior, were

² Lovins, A.B. et al. (2013) *A new dynamic effective business in circular a circular economy*. Page 143. United kingdom: Ellen MacArthur Foundation Publishing.

access is becoming higher valued, while ownership is decreasing in importance (Ekström & Salomonson 2012).

The notion *Circular Economy* gained traction in 2010 when the Ellen MacArthur Foundation was established, but the concept has origins that are deeply rooted and cannot be directly connected to any single author or date (McKinsey 2013a). McKinsey (2013a) has identified the following five main principles of the circular economy:

- ***Design out waste:*** By designing out waste, both environmental and operational improvements can arise. The aim is to reduce waste by designing products for disassembly and refurbishment to fit within biological and technical material cycles.
- ***Build resilience through diversity:*** A diverse system built on features such as modularity, versatility and adaptively makes the system less vulnerable to external shocks.
- ***Rely on energy from renewables:*** As great amounts of energy are typically used during production processes, using renewable resources should be the ultimate aim for manufacturing systems.
- ***Think in systems:*** The concept of the circular economy is inspired by living systems, where systems rather than components are optimized. The ability to understand how different parts of the system influence each other is therefore crucial.
- ***Waste is food:*** Technological and biological nutrient-based products and materials should cycle through the economic system through different applications before they finally re-introduce their nutrients into the biosphere.

Even though the concept of circular economy and its benefits are quite easily understood, the actual implementation and change towards a circular economy is an obstacle for its diffusion (Lovins et al. 2013). Further, changing circumstances calls for changing business models (Teece 2010). Thus, business models will be described in the next section, in order to provide insights regarding how the circular economy might be applied to companies in different situations.

2.2 Business Models

For the purpose of this thesis, the following definition of a business model is used:

A business model describes the rationale of how an organization creates, delivers, and captures value³.

A company's business model serves to illustrate the organizational and financial architecture of the company on a conceptual level. Internal as well as external factors affect the suitability of a particular business model in a particular setting.

³ Osterwalder, A (2010) *Business Model Generation*. Page 14. Hoboken, New Jersey: John Wiley & Sons, Inc.

Further, the growing use of the Internet has increased transparency, and customers in today's society have a greater ability to gather information about different options than ever before (Teece 2010). Thus, it is important for companies to keep their business models up to date in order to remain competitive. In the next section, Osterwalder's Business Model Canvas will be further described, followed by a brief overview of business models suitable for the circular economy.

2.2.1 Business Model Canvas

Osterwalder's (2010) business model canvas can be used to map and illustrate the building blocks of a company's business model. The business model canvas consists of nine building blocks: Key Resources, Key Activities, Key Partners, Value Proposition, Customer Segments, Customer Relationships, Channels, Revenue Streams, and Cost Structures, which are described below.

The *Key Resources*, *Key Activities* and *Key Partnerships* refer to the critical resources, activities, and partnerships that the company possess and utilize to create value for their customer segments. The key resources can either be physical, financial, intellectual, or human. The key activities describe the activities that enable the business model. Finally, key partnerships are the various connections to suppliers and other partners that enable the company to create and deliver value to their customers. These partnerships can be in different forms such as strategic alliances, joint ventures, and buyer-supplier relationships (Osterwalder 2010).

Furthermore, the *Value Proposition* concerns the mix of products and services that a company offers to create value for their customers. The value created can be both qualitative and quantitative, and take various forms such as performance, design, price, risk reduction or convenience (Osterwalder 2010).

The *Customer Segments* building block concerns identifying the target customers. By deciding whom to target and choosing variables to segment the market, companies improve their ability to tailor their offerings to different customer segments (Osterwalder 2010). According to Osterwalder (2010), some examples of strategies for customer segmentation are targeting a non-segmented mass market, targeting segments with little differences, targeting interdependent segments, and targeting diversified segments.

Considering *Customer Relationships*, this building block expresses what relationship the company intends to have with their customer segments. Customer relationships mainly serve three purposes: to increase the customer base, to retain current customer base, and to increase sales to current customers. The nature of the customer relationship can range from a close, personal relationship to very limited and standardized communication (Osterwalder 2010).

Value is transferred to the customers through various *Channels*. However, the channels do not only relate to the delivery of the products and services, but to all touch points between the company and its customer segments during the

various phases of the customers' buying process: awareness, evaluation, purchase, delivery, and after sales (Osterwalder 2010).

The *Revenue Streams* building block accounts for the revenue streams for the different customer segments: for what and how the customers are paying. Products and services can be priced in different ways and there are a variety of different ways for customers to pay for the products and services, such as buying an asset, renting it, or paying on a subscription basis (Osterwalder 2010).

The ninth, and final, building block considers *Cost Structures*. This comprises the various operating costs for the company, both fixed and variable (Osterwalder 2010).

2.2.2 Business Models for the Circular Economy

Accenture (2014) has identified five business models that drive the circular economy: Circular Supplies, Resource Recovery, Product Life Extension, Sharing Platforms, and Product as a Service. These business models and their characteristics and relations to other classifications will be further described below.

Circular Supplies

In the *Circular Supplies* business model, companies produce inputs for other companies that are renewable, recyclable or biodegradable. By supplying these kinds of inputs, the companies enable other companies to use inputs in a circular manner rather than a more, traditional linear manner. Thus, the amount of waste is reduced, and the loop of resources is tightened (Accenture 2014).

Resource Recovery

The *Resource Recovery* business model is based on recovering the value of a product at the end of its lifecycle. By recycling, or preferably up-cycling, the product, companies can turn waste into value. This business model leads to a tighter loop, and is related to *cradle-to-cradle* (Accenture 2014). The concept of the cradle-to-cradle is based on the philosophy that products should be designed to enable resources to be recovered at the end-of-life (McDonough & Braungardt 2002). Additionally, McKinsey (2013a) points to end-of-life waste as a main disadvantage of the linear economy. Thus, they propose setting up global reverse networks, and incentives to better enable business models based on reverse cycles.

According to McDonough and Braungardt (2002), what is commonly believed to be recycling is often better described as down-cycling, since the resources lose value in the process. Thus, this is not desirable, and better models are needed. However, McKinsey (2013b) identifies cascading, where the resource cascades through multiple stages, with declining value in each stage, as a beneficial process for some materials, such as textiles.

Product Life Extension

The *Product Life Extension* business model considers prolonging the life cycle of products. Through repairing, upgrading or remanufacturing products, value can be maintained instead of diminishing over time (Accenture 2014). Business models based on reuse and prolonging the products lifetime result in greater environmental benefits than business models based on recycling (Watson et al. 2014). However, remanufacturing of parts and components and refurbishing of products often requires specialized knowledge and skills, which makes this difficult (McKinsey 2013a).

Sharing Platforms

The foundation of the *Sharing Platforms* business model is collaboration and sharing between users. By providing a platform, the companies enable the users to share resources and increase the utilization of the resources. This business model is best suited for products with a low utilization rate (Accenture 2014). According to McKinsey, (2014) collaborative consumption can allow companies to capitalize on idle resources. Additionally, this can enable people and companies to resell products (McKinsey 2013a).

Product as a Service

The *Product as a Service* business model reframes the way users perceive an offering. Instead of owning a product, the users are paying for a service. This can be achieved through various mechanisms such as leasing agreements or pay-for-use models (Accenture 2014). Furthermore, product as a service as business model provides incentives for the manufacturer to develop and offer products with higher quality and longer life times (McKinsey 2014). Moreover, prolonged relationships with customers increase the likelihood that products will be returned at the end-of-life, allowing companies to recover resources (McKinsey 2013a). In present times, customer behavior has changed. Nowadays, many customers are valuing access over ownership, which enables the product as a service business model (McKinsey 2014).

By understanding these types of business models, different opportunities for companies can be identified and structured. But first, in order to provide an overview and starting point for discussions regarding future development, the current end-of-life treatment for textiles is described in the next section.

2.3 Current End-of-Life Treatment for Textiles

The average Swede consumes about 15 kg of textiles per year. Of these 15 kg, only about 3 kg are reused or recycled (Palm 2011). Charity organizations play a prevailing role in the collection of textile waste and no governmental actors are currently active in this process. Of the textile waste collected by charity organization, only a small portion is resold within Sweden. The majority, over 70 %, is sold or donated to receivers abroad (Tojo et al. 2012). A few of the actors: Myrorna, Human Bridge, and Stadsmissionen are briefly described in Appendix 1. Of the remaining 12 kg, about 8 kg are incinerated and the last 4 kg are either accumulated by the owner, or handled in other unknown ways (Palm 2011).

Additionally, increased usage of information technologies has enabled people to sell clothes via online platforms where customers can post advertisements for buying and selling various items, such as Ebay and Blocket.se (Ekström et al. 2012). Moreover, according to a Dutch study, the average time that a person keeps a garment is three years and five months. When getting rid of their clothes, 16 % discard clothes in good condition in the garbage regularly, and 46 % do it occasionally (Hjelmgren & Gustafsson 2013). Additionally, 21 % get rid of their clothes because they get tired of them (Ekström & Salomonson 2014).

In Figure 2 below, the material flow for textiles in Sweden is illustrated.

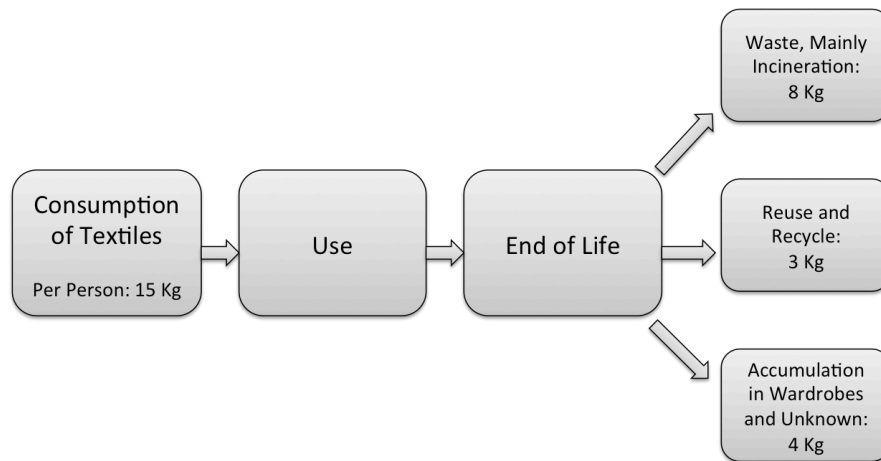


Figure 2 The textile flow in Sweden

Due to institutional, technical, and economic obstacles, recycling is currently not believed to be an effective type of waste management for textiles in Sweden (Palm 2011). These obstacles occur in the different phases: consumption, reuse and recycle. The obstacles identified by Palm (2011) are shown in Table 1 below.

Table 1 A summary of the obstacles for recycling of textiles identified by Palm (2011)

	Consumption	Reuse	Recycling
Institutional (social, legal)	<ul style="list-style-type: none"> • Price and quality are poorly correlated • Fashion changes at a rapid pace 	<ul style="list-style-type: none"> • Fashion changes at a rapid pace • Perception of used clothes • Collection system is fragmented 	
Technical		<ul style="list-style-type: none"> • Quality of textiles 	<ul style="list-style-type: none"> • Mixed fibers in different garments and fabrics • Not designed and made for recycling
Economic		<ul style="list-style-type: none"> • Price – used textiles has little or no price advantage over new ones for customers • The goals of charity organizations are to maximize profit – not reuse • Costly to repair clothes 	<ul style="list-style-type: none"> • Low grade – low value output • Mixed fibers in different garments and fabrics • Lack of scale

As can be seen in the table, there are various obstacles for effective and efficient reuse and recycling of textiles in Sweden today. Starting with the institutional obstacles, clothing is often a fast-moving industry. This leads to a high consumption rate and low second hand values. Moreover, price and quality are poorly correlated which makes it difficult for the customers to gauge whether a higher price leads to a longer life times of the products or not. There is also a perception that used clothes are unclean, making some customers hesitant to the second hand market (Palm 2011). However, the acceptance of buying used textiles has recently increased (Ekström & Salomonson 2012).

The technical obstacles mainly concern the fact that the textiles used in clothing today often have too low quality to be recycled in a larger scale. The use of different materials and fabrics with mixed fibers complicates the recycling of textiles (Palm 2011).

Finally, the economic obstacles for reuse are, to a large extent, related to high labor costs in Sweden. Costs for collecting and handling used textiles are the main reason why used textiles have little or no price advantage over new textiles. It is also costly to repair clothing. Moreover, recycling is prevented by the lack of opportunities of economies of scale due to low volumes in Sweden and the currently low grade and value of recycled fibers (Palm 2011). Current methods for recycling textiles shorten the fibers, which lead to a lower quality compared to virgin fibers (Hjelmgren & Gustafsson 2013).

However, there are opportunities to overcome these obstacles. In the consumption phase, these include better and more accurate quality labeling of clothes and producing for recycling. Regarding reuse, some examples of solutions are making the producers responsible for handling the waste, and emphasizing the lower amount of toxins in children's clothes that has been washed several times compared to new ones. For recycling to be a more viable option as textile waste management, textiles needs to be designed and produced for reuse and recycling (Palm 2011).

Moreover, several actors have started to collect used textiles in stores and are also donating unsold items to charity organizations (Ekström & Salomonson 2012). However, there is also a common misconception that clothes have to be in good condition to be donated (Ekström & Salomonson 2014). Thus, another hurdle that must be overcome is to increase the customers' awareness of the situation. By getting to know more about the customers' behaviors and preferences, the actors can better adapt to their behaviors and preferences when making efforts to educate and inform them (Ekström & Salomonson 2012). However, most people are aware of the fact that their consumption of clothes affects the environment, but few are changing their actions accordingly. Thus, there is a values-action gap (Ekström et al. 2012).

This section provided an overview of the current state of the current end-of-life treatment for textiles in order to provide an overview of the existing process, obstacles and opportunities. In the next section, milestones and regulations

regarding circular economy will be presented in order to complement this overview and to understand how this might change in the future.

2.4 Proposed Milestones and Future Regulations

The proposed milestones and regulations regarding the circular economy will here be divided into three different interdependent levels: the European Union, the Nordic region, and Sweden. This section does not provide a comprehensive description of milestones and regulations on the different levels, but provides relevant examples for this context.

2.4.1 European Union

Within the European Union, a circular economy package was proposed in order to establish a common and coherent framework to promote the circular economy (European Commission 2015). This package aimed to increase recycling, create economic growth, and reduce greenhouse emissions through regulations regarding factors such as waste, packaging, and landfills. The package had support both from businesses and a majority of environmental ministers but was withdrawn by the European Commission in February 2015 (Crisp 2015a). The European Commission claims that they are aware of the urgent problem of waste handling and aims to resubmit a new, more ambitious package later in 2015 (Crisp 2015b).

There are also ongoing discussions regarding *Extended Producer Responsibility* (EPR), which implies that producers need to take greater responsibility of their products becoming resource efficient, free from dangerous substances, recyclable and reusable (Augustsson 2013). The producers are commonly defined as manufacturers within a country, importers and retailers (Watson et al. 2014). Although EPR systems are not believed to spontaneously encourage *upstream effects*, Watson et al. (2014) argue that if these types of systems are designed carefully this can be achieved through incentivizing products to be designed to last longer and to be easily recycled and with minimized use of hazardous chemicals during production. This could lead to greater environmental benefits than for example collection of clothes in-store in exchange for discount vouchers, which might offset the environmental gains by potentially leading to increased consumption (Watson et al. 2014).

Currently, there is only one functioning mandatory Extended Producer Responsibility (EPR) system in Europe, in France. Since 2006 clothing companies in France have been responsible by law to ensure recycling and reuse of their products. The companies can fulfill the requirements either by self-organized programs approved by French authorities, or by contributing financially to organizations accredited by the authorities (Watson et al. 2014). Since the implementation of mandatory EPR systems in France the collection quantities have increased with 8 % per year. As companies using textiles with more than 15 % recycled fibers not have to contribute as much financially to the organizations providing collective systems, this EPR system is considered to promote positive upstream effects through an increased usage of recycled fibers (Watson et al. 2014).

2.4.2 Nordic Region

Sjöström (2014) argues that the Nordic region has potential to be in the frontline of sustainable fashion if the countries collaborate regarding these issues. In response, scientists from the Nordic countries have made suggestions regarding how to organize and increase collection, sorting, recycling and reuse of textiles in the Nordic region (Sjöström 2014). This is a part of the Nordic Prime Ministers' initiative, *The Nordic Region – leading in green growth*, which identifies different priorities in order to increase green growth in the region. In the various reports released in relation to this initiative, two areas that have been emphasized are Extended Producer Responsibility (EPR) systems, which are discussed in the previous section, and the Nordic textile strategy (Watson et al. 2014).

The Nordic textile strategy proposes changes related to increased transparency, customer behavior, and reuse and recycling among other areas. Regarding this strategy, different scenarios have been identified, classified with regards to level of cooperation between the Nordic countries and level of change (Palm et al. 2015). Different strategies and efforts are associated with the different scenarios, where the most advanced scenario that is projected to bring greatest benefits, called Nordic innovation, requires a high level of cooperation and a common strategy for the involved countries. This scenario could potentially lead to a significant increase in collection and reuse of used clothes, as well as textile upcycling (Palm et al. 2015).

2.4.3 Sweden

In December 2013, Naturvårdsverket proposed milestones regarding handling of textile waste in Sweden. The proposed milestones state that by 2018, easily accessible textile collection systems should be in place, enabling increased reuse of textiles. Further, by 2020, the goal is that 40 % of the textiles on the market will be reused, and 25 % will be recycled, primarily into new textiles. Moreover, hazardous substances should be banned by 2020, further enabling a circular approach. A decision regarding possible update of the milestones will be made in the spring of 2015 (Augustsson 2013).

In order to reach these milestones, Naturvårdsverket also suggests policy instruments, which include producer responsibility and information in order to change customer behavior (Augustsson 2013). Naturvårdsverket is investigating further how an eventual system for collection can be designed, and how producer responsibility can be implemented. Currently, the actors are not responsible for handling textile waste, since it is legally classified as household waste, which the municipalities are responsible for managing (Tojo et al. 2012).

To further assess the development and diffusion of the circular economy, the next section will provide information regarding the Gartner Hype Cycle, which later will be used in order to evaluate how and when the company should adopt to the circular economy.

2.5 Gartner Hype Cycle

In 1990 the Gartner Hype Cycle was developed in order to illustrate how the media reporting varies in different phases when reporting on a new technology (Horton 2010). Moreover, Horton (2010) argues that new technologies are not the only area where this model can be applied; it can also describe how for example different innovations are treated in media.

The Hype Cycle can be used as a tool for technology planning, since it indicates when to invest in a technology by tracking the maturity and future potential of it. However, the assessment of a technology's or a high-level trend's position in the Hype Cycle does not by itself answer the question regarding when to invest. Instead it needs to be seen in relation to the importance and value of the technology or trend for the company, as well as the company's ability and tolerance of risks. By balancing these three factors, a company can be guided regarding when to be aggressive and adopt an innovation early, thus be among early adopters or the early majority, and when to be more risk-averse, thus be in the late majority or laggard (Fenn & Raskino 2013).

According to Gartner's model, the media coverage of a new technology goes through five phases, as shown in Figure 3 below. The Y-axis represents expectations on the technology, which is different from visibility that this axis was labeled with historically (Fenn & Raskino 2013).

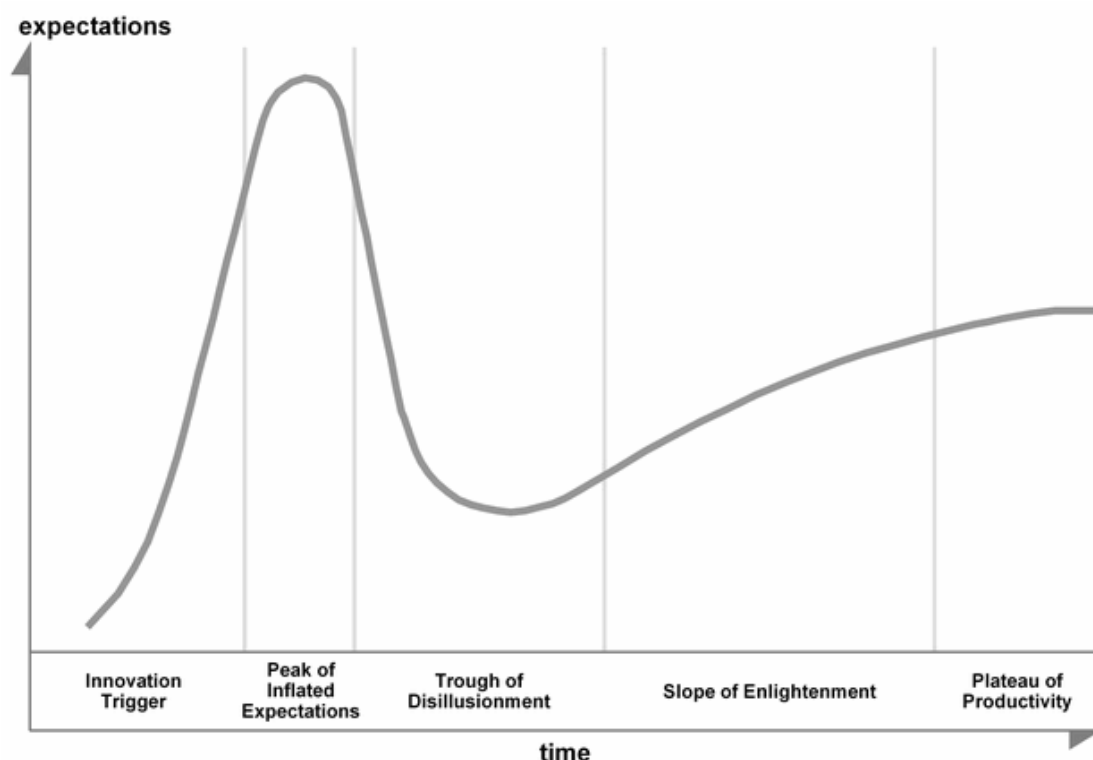


Figure 3 Illustration of the Gartner Hype Cycle (Fenn & Raskino 2013)

Fenn and Raskino (2013) describes the five stages as the following:

1. ***Innovation trigger:*** The new technology is presented to the world
2. ***Peak of inflated expectations:*** A large amount of publicity generates overenthusiasm and unrealistic expectations.
3. ***Trough of disillusionment:*** The technology fails to meet the expectations and press coverage diminishes, or change from enthusiastic to questioning.
4. ***Slope of enlightenment:*** Businesses and universities understand how the technology can be used appropriately.
5. ***Plateau of productivity:*** The technology becomes stable and is applied in useful settings.

The time between the *innovation trigger* and the *peak of inflated expectations* is usually short. When the technology reaches the *peak of inflated expectations* it gets a lot of attention in media. Companies aspiring to be ahead of the curve tries to adopt the technology before competitors, and other companies adopt to avoid falling behind. In this phase, companies also try to use the technology in a wide range of settings (Fenn & Raskino 2013).

In the *trough of disillusionment* phase, there is not always a drop in the overall adoption, but instead the anticipated rapid growth may slow down. In this phase, failures occur since the adoption rate is too slow to sustain many similar product variants. During this phase, articles about the challenges and failures around the technology can be seen, and there is cynicism regarding future potential of the technology. But over time the technology matures and improves based on feedback, leading to the *slope of enlightenment* phase. Typical indications of this phase is that new success stories start spreading, more reliable estimates regarding costs, value and time becomes available and consultancy firms start publishing reports regarding how companies can adopt the technology or higher-level trend through different methodologies (Fenn & Raskino 2013). Finally, the mainstream adoption begins as the technology reaches the *plateau of productivity* phase and many successful deployments can be found in multiple industries (Fenn & Raskino 2013).

However, not all technologies reach the *plateau of productivity*, but become obsolete before they enter the last stage in the Hype Cycle. It is also worth mentioning that not all technologies move through the Hype Cycle at the same pace, and a technology's position in the Hype Cycle can also vary for applications in different industries and depend on geographical conditions (Fenn & Raskino 2013). Thus, the eventual outcome is different in different cases. Hype Curves for some technologies might exceed expectations, while others perform worse than expected. This is illustrated in Figure 4 below.

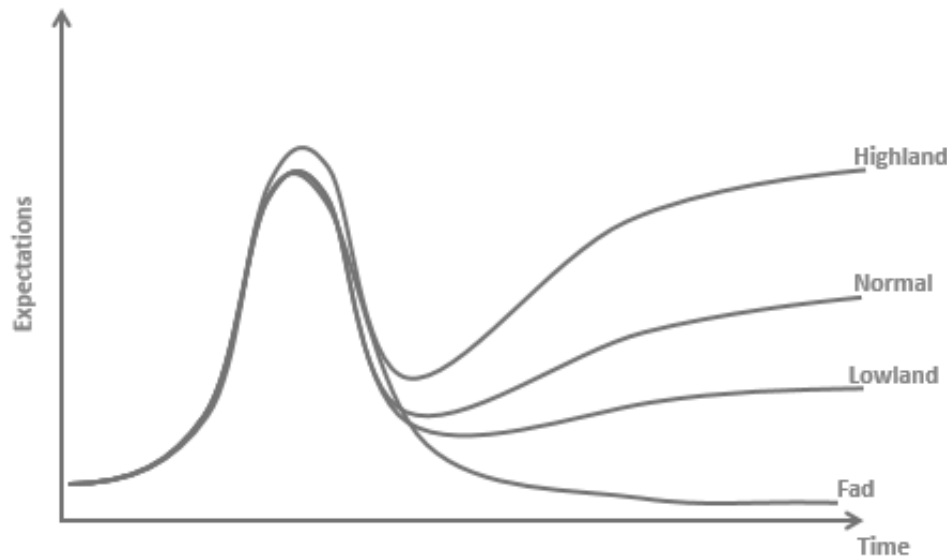


Figure 4 The various paths a trend or technology can take in the Hype Cycle (Fenn & Raskino 2008)

Which path a specific hype curve will take is difficult to foresee. However, there are some factors that affect the outcome. If there is no substance underlying the trend it is likely to become a fad. Management trends revolving around an idea without a technology or physical asset are often replaced by new trends with similar goals (Fenn & Raskino 2008). Similarly, technologies that get embedded in other products might disappear as a distinct category or concept in the Hype Cycle (Linden & Fenn 2003).

Nakano et al. (2014) have applied the Hype Cycle to sustainable business. They claim that sustainability is the most important and emergent issue for the coming decade and that business and supply chain leaders must pay attention to it. The Hype Cycle for sustainability consists of technologies that have the potential to deliver significant sustainability benefits, and it is rather crowded (Nakano et al. 2014).

Further, when assessing trends within supply chain management, Capgemini (2014) identifies the circular economy as a trend with potentially high benefits that is likely to reach mainstream adoption within two to five years. Figure 5 shows Capgemini's (2014) placement of circular economy in Gartner's Hype Cycle.

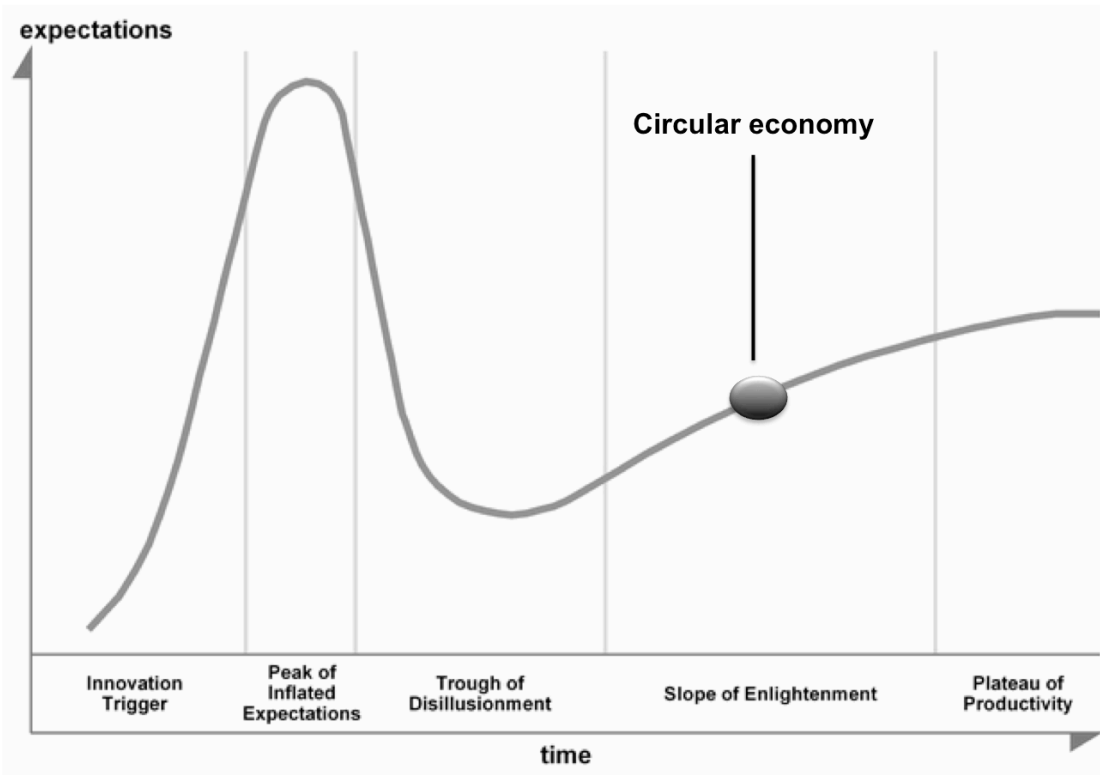


Figure 5 Cappgemini's (2014) placement of the circular economy in the Hype Cycle

When adopting new initiatives or trends, it is often beneficial to involve customers in the process. The next section provides information regarding lean customer development, which principles will lay the foundation for the process of identifying and evaluating opportunities in this thesis.

2.6 Lean Customer Development

The success of a product or service is dependent on the customers' willingness to pay for it. It does not matter how great or innovative the product or service is, if it does not appeal to the customers (Alvarez 2014). Thus, by applying customer development companies can learn about their customers' problems, needs, behaviors and other factors that might guide the development of products that customers actually are willing to buy. Lean customer development relies on the essence of customer development but renders the ideas into a simple process that could be followed by companies (Alvarez 2014). Alvarez (2014) has stated five steps included in lean customer development:

- **Forming a hypothesis**
 - The hypothesis needs to consider the five dimensions of why, what, how much, when and why.
- **Finding potential customers to talk to**
 - It is beneficial to perform interviews with customers on site so that the customer can be in his/her natural environment.
- **Asking the right questions**
 - The focus of the interview questions should be on procedures and on the present.

- **Making sense of the answers**
 - Distinguish between want and will to avoid biased answers. Usually a pattern in the answers can be identified after ten interviews.
- **Figuring out what to build to keep learning**

Depending on the prerequisites when starting the lean customer development process, different kinds of research might be valuable to pursue. Research could be either generative or evaluative. Generative research usually results in new ideas, but do not necessarily start with a hypothesis, instead it could be pursued in order to refine or get new ideas for hypotheses. Evaluative experiments usually starts with a hypothesis in order to get a yes or no result (Kromer 2014). Further some methods focus on the market while others focus on products. Kromer (2014) argues that the distinction between generative research and evaluative experiments, and the distinction between market and product could be combined in order to form the matrix shown below in Figure 6. This matrix's four different boxes can be used to guide companies regarding what activities to perform.

	Market	Product
Generative research	Understanding the basis of the problem by involving customers. Needs to be done before testing a solution.	Evaluation of a specific hypothesis
Evaluative experiment	Deciding how to design the solution based on the validation of the market and value proposition.	Evaluate the product to find out how it can be optimized.

Figure 6 Activities in the different boxes developed by Kromer (2014)

3 Methodology

This section aims to outline the methodology of the thesis. The research strategy and process is described as well as data collection, data analysis and sampling methods. Finally the methodology is critically reviewed and evaluated in terms of reliability and validity.

3.1 Research Strategy

A carefully designed research strategy enables the research activities to be organized in optimal ways, which increases the likelihood of fulfilling the research purpose (Easterby-Smith et al. 2013). The purpose of research can be either descriptive or explanatory. If the purpose is descriptive, the research aims to explain the situation. If the purpose is explanatory the research aims to explain why the situation is as it is (de Vaus 2001). Thus, the purpose of the underlying research for this thesis is mainly explanatory, but with a descriptive foundation: First, the current situation is analyzed by identifying the current state and trends in the industry from a circular economy perspective. Thereafter, the focus shifts to how and why MQ should respond to a shift towards a circular economy.

Since the research is predominantly explanatory in its nature and requires insights and understanding of the circular economy, of MQ's position, and of the surrounding environment, a qualitative research strategy is chosen. Although some parts of the study are performed in a quantitative manner, these parts are performed mainly to support and further exploit the understanding of the qualitative parts.

Further, de Vaus (2001) states that research can be either deductive or inductive. An inductive approach implies that the researcher builds a theory after making observations, while a deductive approach starts in theory that is tested in observations. However, Bryman & Bell (2003) claim that both these types of research are likely to involve elements of the other. Dubois and Gadde (2002) further argue that besides deductive and inductive approaches there is an abductive approach. This approach is suitable for research focusing on theory development rather than theory generation. The abductive approach is more similar to the inductive approach than the deductive, with the main difference being that when using an abductive approach the used framework successively changes during the process due to empirical findings and new literary insights (Dubois and Gadde 2002).

To fulfill the purpose of this thesis, the approach chosen is a mix between abductive and inductive. Since existing theory was reviewed prior to pursuing empirical studies, and as interesting areas was identified during the empirical studies, new information was gathered and added to the theoretical framework. But since the research area is rather unexplored, preliminary results from the empirical studies contributed to fulfill the purpose of the thesis, and thereby observations contributed to theory rather than tested an existing theory.

3.2 Research Process

The research process for this thesis is shown in Figure 7 and further explained below. This process can be applied to companies in similar situations as MQ, the focal company for this study.

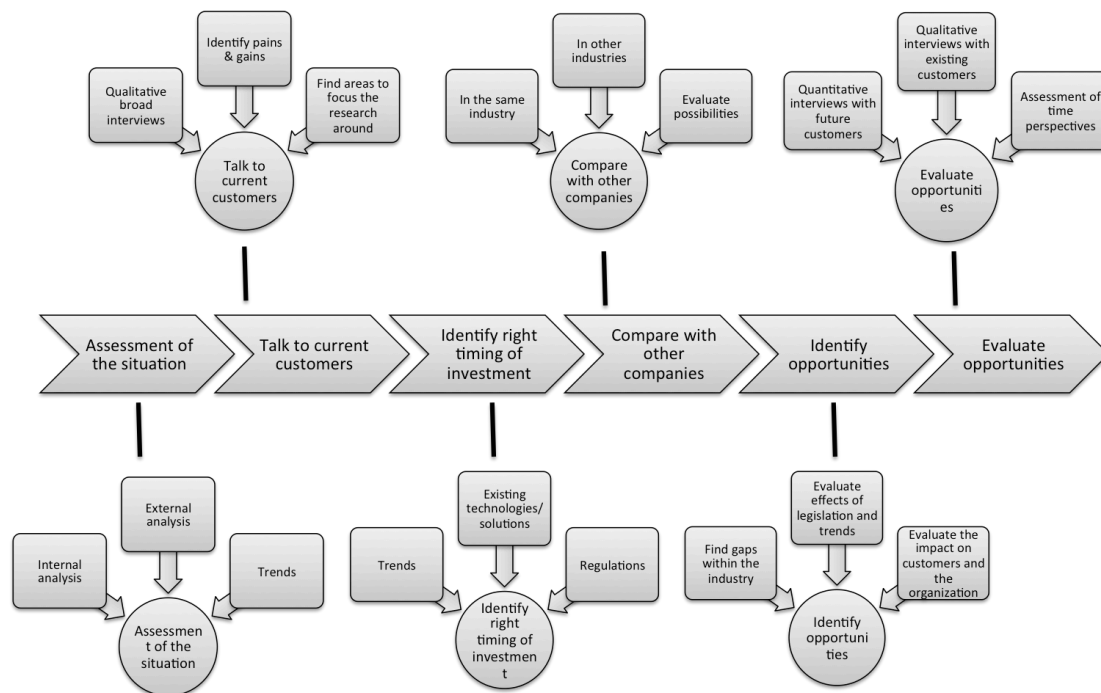


Figure 7 An illustration of the research process underlying this thesis

The research process starts with an assessment of the current situation, followed by customer interviews. Thereafter, the timing of investment is assessed, followed by an examination of other actors' actions related to the circular economy. Then opportunities are identified, based on the previous analysis. Finally, the identified opportunities are evaluated.

The research process follows an iterative approach, where findings in one phase influenced and directed the following steps. The process is inspired by Lean Customer Development, by early focusing on customer involvement and allowing the learning from customers to guide the direction of the research. Alvarez (2014) argues that an understanding of the customers' priorities and behavior can guide companies in the right direction when developing business models. However, for the purpose of this research no initial hypothesis was formulated and only a generative market research, as Kromer (2014) defines it, was performed. The phases in the research process are further described below.

Phase 1: Assess the Current Situation

In the first phase, shown in Figure 8, the current situation was assessed. An internal analysis as well as an external analysis was conducted.

The internal analysis was conducted by mapping MQ's business model onto Osterwalder's (2010) Business Model Canvas, shown in Chapter 4 Assessment of MQ's Situation. Having an external party perform the internal analysis provides new perspectives and increases the objectivity of the analysis. However, it also limits the level of detail possible.

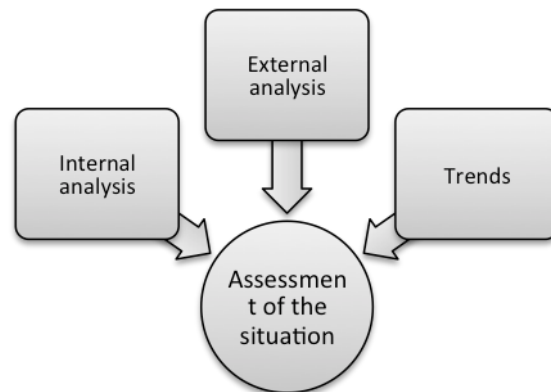


Figure 8 Phase 1: Assess the Current Situation

The external analysis was conducted through Porter's Five Forces framework and PESTEL analysis. These tools are easy to follow and cover both micro and macro areas of the environment (Sørensen 2012). In combination with the internal analysis, the external analysis forms the foundation for the situation analysis that is presented in Chapter 6.1 MQ and the Clothing Industry.

Moreover, trends within the industry and wider trends in society were examined to assess factors that might change the industry in the near future. The trends were examined through a review of articles and blog post regarding related subjects.

Phase 2: Speak to Current Customers

In order to gain insights regarding current customers' perception of the shopping experience qualitative interviews were conducted. The interviews provided insights regarding customers' current awareness regarding issues such as sustainability and priorities when shopping. This phase of the research process is illustrated in Figure 9.

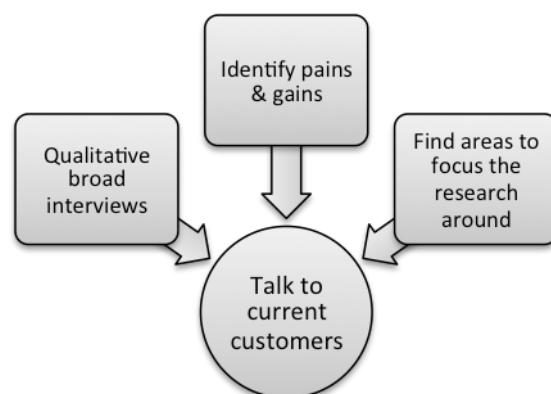


Figure 9 Phase 2: Speak to Current Customers

Phase 3: Identify the Right Timing of Investment

Trends, regulations and existing technologies and other solutions enabling the circular economy were examined in order to provide a foundation for analysis of the state of the trend of the circular economy, providing clues for timing of implementing opportunities. However, this step mainly aims to examine the evolvement and potential future development of the circular economy within the clothing industry, rather than to provide an exact time for investment. This phase of the research process is illustrated in Figure 10.

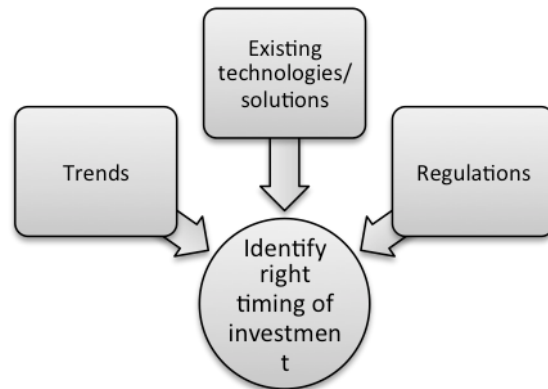


Figure 10 Phase 3: Identify the Right Timing of Investment

The trend of the circular economy within the textile industry was examined through a Hype Cycle analysis. The process of conducting this analysis is further described in chapter 3.3.2 Collection of Secondary Data. Further, a non-comprehensive review of currently available sustainable materials and technologies enabling the circular economy in the textile industry was performed. This was done mainly through secondary sources, complemented by a phone interview with a representative at Wargön Innovation, a Swedish actor involved with the development of new technologies for recycling. The interview is further described in chapter 3.3.1 Collection of Primary Data. Moreover, existing and potential future milestones and regulations regarding issues related to the circular economy were examined by reviewing webpages of related organizations, research reports, and through an email interview with a representative at Naturvårdsverket, further described in chapter 3.3.1 Collection of Primary Data.

Phase 4: Compare with Other Actors

Other companies, both active in the textile industry and in other industries, were reviewed in order to gain insights regarding other actors' transition to the circular economy and broader sustainability efforts.

Initially a large set of companies was reviewed, focusing on their sustainability efforts. Based on these companies' efforts specific areas of interest regarding the circular economy were identified.

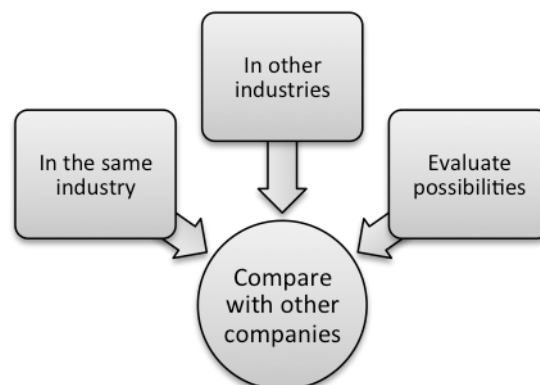


Figure 11 Phase 4: Compare with Other Actors

Thereafter, a smaller set of companies, ten within the textile industry and five within other industries, were chosen for deeper analysis regarding the identified areas. Secondary sources were used in this step since no comprehensive reviews of other companies' sustainability efforts were needed. This phase of the research process is illustrated in Figure 11.

Phase 5: Identify Opportunities

By combining the insights gained through the previous steps, areas for further investigation were identified. This phase of the research process is illustrated in Figure 12.

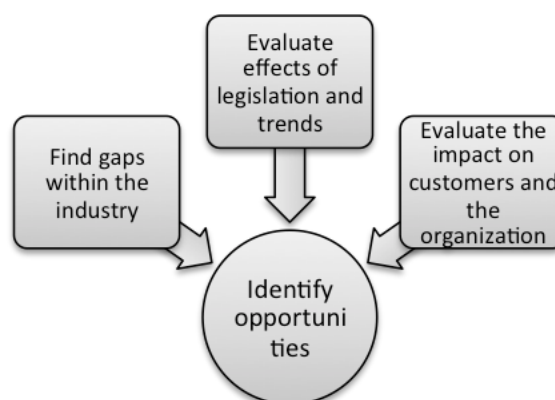


Figure 12 Phase 5: Identify Opportunities

Phase 6: Evaluate Opportunities

In order to evaluate the identified areas of opportunities, an assessment of MQ's and customers' views was performed. The customer interviews were conducted both in store and through an online survey. The online survey targeted respondents in the age between 20 and 30, aiming to reach potential future customers. In addition to this, the findings from the previous steps were used to further validate the opportunities. This phase of the research process is illustrated in Figure 13.

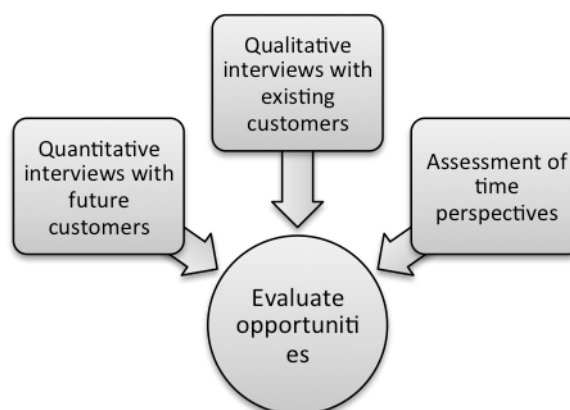


Figure 13 Phase 6: Evaluate Opportunities

With insights regarding the research processes it can be understood *why* certain data and information is required. In the following section, it will be described *how* this data and information was gathered by describing methods used for data collection in the different phases.

3.3 Data Collection

Both primary and secondary data have been collected as parts of this study. This section will begin with an overview of the primary data collection, followed by secondary data collection.

3.3.1 Collection of Primary Data

The primary data was collected through qualitative interviews with employees at MQ, a representative from Wargön Innovation, a representative from Naturvårdsverket, as well as a sample of MQ's current customers. Additionally, quantitative interviews in form of an online survey were performed in order to access potential future customers.

Interviews With Employees at MQ

Interviews were conducted at various stages of the process with employees at MQ with different responsibilities: CSR & Environmental Manager, Supply Chain Manager and a project leader for MQ's Loyalty Club. In the initial stage, the purpose was to gain understanding of the organization as well as the company's prior views and actions within the area. As no direct interview questions were prepared, but only areas to explore, these interviews were unstructured. Unstructured interviews are suitable in this situation since the aim was to explore an area of interest in depth and understand what the interviewees felt about different situations. (Easterby-Smith et al. 2013).

During the interviews both authors of this thesis were present. One person led the interview, while the other one adopted a more passive role and focused on taking notes. By performing the interviews in this way, there is less risk of antagonizing the respondent, and the interview can take the form of an informal conversation, which might be advantageous in this situation (Bechhofer et al. 1984). Bechhofer (1984) further argues that this category of interviews enables changing subject when needed and usually ends up covering the intended subjects better, as it is easier for an interviewer to sustain a conversation without having to take notes.

Interviews With Representatives from Wargön Innovation and Naturvårdsverket

The interview with the representative at Wargön Innovation was performed on the 16th of April over the phone, and lasted approximately one hour. The purpose of the interview was to gain further insights regarding recycling technologies in Sweden and more specifically regarding the technology of a company they currently support, Re:newcell. The interview was semi-structured, where questions of interest were prepared prior to the interview. When the interview was conducted the interviewee was encouraged to follow up on interesting areas and the order of the questions changed, which Easterby-Smith et al. (2013) argues can be good to facilitate an easily flowing discussion. The interview template is presented in Appendix 2.

The interview with the representative from Naturvårdsverket was performed via email, where the response to the questions was received the 17th of March. This interview was structured. The reason for conducting the interview via email was limited time and availability of the interviewee. The interview template is presented in Appendix 3.

Customer Interviews

The interviews with MQ's current customers were performed on a subset of the population of interest. Further, the interviews were conducted by both authors of this thesis, in two rounds of twelve interviews respectively. The reason for dividing the interviews into two rounds was to gain insights through the first round of interviews and thereafter being able to ask questions on more focused areas of interest during the second round. Even though the questions in the two rounds differed, the core process was the same. The Interview template for the first interview presented is found in Appendix 4, and the interview template for the second interview round is presented in Appendix 5.

Both interviews were conducted on Saturdays, 21st of February 2015 and the 27th of March 2015, at MQ's store on Fredsgatan, Göteborg. The interviews were performed in a semi-structured manner where a questionnaire was prepared. Both interviewers followed the interview template, but occasionally the interviewees were asked to elaborate on areas of interest. The choice for pursuing this type of interview was twofold. First, there were two interviewers so to gain comparable data the same questions needed to be asked. Second, the aim of the interviews was to gain explorative and informative data wherefore some elaboration following interesting areas brought up was encouraged.

The interviews were performed in store in order to reach the customer in their natural environment, where they besides articulating their answers also could demonstrate them. (Alvarez 2014). The targeted population was MQ's current customers. The interviews were performed in one store in Gothenburg during two days, where people randomly were asked to participate. The interviewees received a 100 SEK gift card at MQ. The interviewees are not forming a representative sampling frame for the entire population of MQ's customers, but rather a representation of the customers that go shopping on Saturdays, in that specific store at that specific time. Because of the potential sampling bias, no general conclusions have been drawn based on the data collected.

Moreover, the interview questions are formulated with guidance from Alvarez's (2014) recommendations regarding lean customer development. Further, the questions are inspired by the *ladder interview technique*, which encourages questions as "why" and "when was the last time..." in order to examine the interviewees underlying value bases (Easterby-Smith et al. 2013).

Online Survey

The quantitative interviews were performed through an online survey posted on Facebook the 22nd of April, which remained active until the 25th of April. The survey was posted on the two authors' Facebook profiles, implying that the sampling frame constitutes of the friends that these profiles had. Since both

authors live in Gothenburg and attend Chalmers University of Technology this sampling frame is not a proper representation of the whole population of people under the age of 30, but it is most likely biased by location as well as education level. This sampling, called convenience sampling implies that interference between the sample and the population cannot be drawn with the same level of confidence as when applying probability-sampling designs (Easterby-Smith et al. 2013). Thus, can no generalization be drawn from the results, but some respondents' thoughts and impressions of the related subject are displayed in the results

The purpose of the online survey was to gain insight regarding how a younger target group reflects upon matters within the identified areas. By using the Internet, a larger amount of people could be reached in a rather simple and quick manner (Bryman and Bell 2003). 72 persons under the age of 30 answered the survey and out of these were 56 % women and 44 % men. The survey was structured and required the respondents to answer all the questions. The result from the survey is presented in Appendix 6.

3.3.2 Collection of Secondary Data

Through the research process, a review of relevant literature was performed. By reviewing existing information, the analysis could be grounded in reliable frameworks. The data was collected through sources such as research papers, books, and reports on related topics.

In the research process *Phase 3: Identifying the Right Timing of Investment*, the findings were based on two sources. The first is the search engine at Chalmers Library, which is a data base called Summon administered by ProQuest (ProQuest 2015). For assessing the media coverage over time, the number of results for the examined search terms over the years was compared. Only content within the category "Newspaper Article" was used, to assess the media content readily available for customers. Chalmers Library only have access to a limited amount of these articles, but since only media coverage in terms of published newspaper articles was examined and not the actual content, results beyond Chalmers Library's selection was chosen to be included. The second is Google Trends, which shows the search interests on Google in normalized numbers rather than absolute. Google Trends is used since it provides an indication of the interest of the subject in society at large.

Further, *Phase 4: Comparing With Other Companies* is based on archival research since the data of interest already existed and was sufficient for drawing conclusions (Easterby-Smith et al. 2013). The secondary sources used in the archival research consisted of the examined companies' annual reports and sustainability reports. However, the archival information is complemented by information from the examined companies' webpages.

3.4 Data Analysis

The analysis of the empirical data was performed inspired by the Grounded Theory framework (Bryman & Bell 2003). In this thesis, data collection and analysis were performed in parallel in line with this framework. By using an iterative approach, learning from previous findings directed the development of the research. Further, as data was collected transcripts were first read through and reflected on for enabling the information to be coded (Easterby-Smith et al. 2013). The collected data were coded into areas of particular interest in order to understand the situation. The different areas were then re-coded when new empirical findings were gathered. The final five categorizations of data that were identified are *Design*, *Prolonging the Lifecycle*, *Garment Collection*, *Facilitate Reselling* and *Other Efforts*.

3.5 Critical Discussion of Methodology

Regarding the methodology, a few choices are worth discussing from a critical point of view. Starting with the research process, the iterative process can potentially have directed the research in an unfortunate direction. Thus, examining more alternatives following each step might have increased the reliability and validity of this thesis.

Further, some principles of Lean Customer Development are reflected in the research process, especially in form of learning from customers in order to iteratively direct the development of the research process. However, since a thorough generative market research was needed in order to provide a foundation for formulating hypotheses, this thesis focused only on this step in order to provide good conditions for MQ to continue the Lean Customer Development process. Therefore, this research is not relying on previous beliefs regarding the market but the market was investigated using an un-biased approach, which can be argued to be beneficial in this situation since it directed the process without the authors' potential prejudgments.

Moreover, the interview with Naturvårdsverket was conducted through email. A face-to-face interview might have provided more in-depth answers. However, time limitation of the interviewee motivated an interview through email.

Additionally, the analysis of the data regarding the trend of the circular economy could have been done more comprehensive by for example adjusting the quantitative data for general trends or as discussed previously included more qualitative variables. However, during the research process this thesis the authors came across plenty of articles regarding the circular economy and a brief qualitative assessment could thereof be performed based on these. Further, the Hype Cycle analysis conducted in this thesis does not aim at precisely map circular economy in the textile industry's placement in the Hype Cycle, but rather provide an approximate illustration of recent attention and development of the trend. As this is not the main focus of this thesis, this method is argued to be enough for the purpose of giving an indication of the circular economy's placements in the Hype Cycle.

Moreover, the research could be evaluated in terms of reliability and validity. A method with high reliability is characterized by consistency, so that it can be repeated and provide the same result (Bryman & Bell 2003). Since preliminary unstructured and semi-structured interviews were applied the nature of these may make it hard to replicate. Additionally, since there were two interviewers there is a chance of difference in how the questions were asked to different interviewees.

The reliability of the research is increased by the fact that the research method has carefully is described and visualized to enable others to replicate it. Furthermore, the interview templates are documented and presented in Appendix 2, 3, 4, 5, and 6, and time, location and other factors affecting the interviews are described in this chapter.

There are different kinds of validity. Regarding this thesis, ecological validity is of interest and applicable. The ecological validity relates to whether the research captures conditions in the everyday life, such as opinions, values, and attitudes of the interviewees in their natural environment (Bryman & Bell 2003). The ecological validity for this is argued to be high, as all interviewees have been approached in their natural environment.

4 Assessment of MQ's Situation

This chapter aims to provide an overview of MQ's internal and external environment. The information in this section comes from various sources. If not otherwise stated, the information comes from interviews with employees at MQ⁴.

4.1 Internal Factors

MQ's philosophy is based on *selected diversity*, which they achieve by providing high quality clothing for both men and women from proprietary as well as external brands. The goal is for the proprietary brands to account for 60-70 % of sales, while the external brands accounts for 30-40 %. Founded in 1957, MQ is currently the second largest actor in the Swedish menswear industry, holding a 5 % market share, and the sixth biggest actor for womenswear, with a 2.8 % market share (MQ 2014).

Further, MQ's vision is to become the leading retail chain in the Nordic region. The company currently operates 121 stores with 116 located in Sweden. The remaining five stores are located in Norway, and the company is planning on expanding further in this market. Additionally, in 2010 the company launched MQ Shop Online. The web shop is growing rapidly, and is creating potential for expansion in both existing and new markets (MQ 2014).

In this section, MQ's internal factors will be analyzed and the company's business model will be mapped onto Osterwalder's (2010) Business Model Canvas. MQ's Business model is shown in Figure 14 below. In the following sections, the different building blocks will be further described.

⁴ Peter Karlsson (Supply Chain Manager, MQ Retail) Interviewed February 2, 20 and 25. Helen Göthe (CSR & Environmental Manager, MQ Retail) Interviewed February 2 and 20.

Key Partners * Providers of external brands * Manufacturers of clothes * Logistics partner * Myrorna	Key Activities * Design * Monitoring of production * Logistics control and planning * Quality assurance * Marketing * Sales * Website maintenance	Value Proposition MQ's value proposition is to provide a well-balanced mix of external strong fashion brands and proprietary brands, which meet customer needs of fashion for an active social living, suitable for both everyday life and special occasions.	Customer Relationships * Mainly standardized communication * More personalized communication between customers in stores and retail associates	Customer Segments Men and women with a mental age between 30 and 40, who live an active, social life with many interests
	Key Resources * Brand recognition * Customer base * Working capital * Stores in attractive locations * Competent employees * IT Systems		Channels * Information and retail associates in stores * Advertisement in various media such as TV, Magazines, and online * Customer service * Facebook, email, SMS, web page, etc.	
Cost Structure * Costs related to: Personnell Purchase of products Facilities Distribution Marketing			Revenue Streams * Sales of products with fixed price	

Figure 14 The authors' interpretation of MQ's business model, applied to Osterwalder's (2010) Business Model Canvas

Key Partners

The combination of proprietary and external brands implies that the actors providing the external brands are important partners. MQ purchases parts of existing collections from external brand owners. Since MQ is relatively small and only one out of many actors providing these brands, MQ's ability to influence them is limited, and the external brands usually do not make adaptations to MQ's processes.

Further, the number of suppliers has recently been reduced in order to improve the control and strengthen collaborations with the suppliers. MQ is also operating purchasing offices in areas where manufacturing is performed, such as Bangladesh, China and Turkey. Their increased presence in these areas has reduced costs through a reduction of intermediaries. This has also improved quality control and compliance to requirements (MQ 2014).

In order to gain flexibility in the supply chain along with the ability to rapidly respond to changing needs and trends, MQ is using an external, third party logistics company. The logistics company operates the central warehouse located in Borås from where deliveries are sent to stores and directly to customers in a demand-driven fashion.

Another of MQ's partners is Myrorna, a charity organization that operates the largest second hand chain in Sweden. MQ donates unsold clothes to Myrorna, which in turn exports and sells these clothes to customers in developing countries for 0.5-1 SEK per item. This contributes to giving thousands of less fortunate people work opportunities, as well as the ability to buy clothes (Ekström and Salomonson 2012).

Key Activities

Along the value chain, illustrated in Figure 15 below, there are key activities that MQ needs to perform to remain competitive. The process for the proprietary brands differs from that of the external brands. Starting with proprietary brands, the value chain begins with the design process, of which MQ is responsible, and is followed by the manufacturing of the clothes, which is outsourced. Although MQ does not produce the clothes themselves, they provide clear specifications to the producers and monitor production and quality aspects. MQ is also responsible for the transportation of their clothes from the manufacturer to their warehouse.

However, the process is different for external brands, then MQ purchases the items from other actors and is not responsible for them until they reach the warehouse. After the items reach MQ's warehouse, the process for proprietary and external brands is the same. The items are either shipped directly to customers or pick up places if sold through the web shop, otherwise they are shipped to the stores. Two of MQ's main goals are to increase sales and market share, making sales and marketing activities especially crucial.

Furthermore, as technology evolves and Internet usage increases, webpage development and maintenance are becoming increasingly crucial activities in order to keep up with, and outperform, the competition.



Figure 15 An illustration of MQ's value chain

Key Resources

In order to increase sales, talented retail associates and a strong brand image are essential. Through the brand, the company can signal certain values to retain their customer base and attract new customers. MQ has an existing customer base, which also is an important resource as MQ has already created a relationship with them and has established communication channels to reach them.

However, a strong brand, talented retail associates, and an existing customer base are not enough. In order to create desirable items and being able to distribute them to customers, MQ requires competence in design, purchasing and logistics. Thus, these are also essential resources, which MQ possesses. Additionally, in order to handle economic fluctuations and other unpredictable financial events, working capital in the company is an important resource. Finally, as the IT part of the business has increased in importance, the existing IT- infrastructure is a valuable resource.

Value Proposition

MQ's value proposition is to provide a well-balanced mix of external strong fashion brands and proprietary brands, which meet customer needs of fashion for an active social living, suitable for both everyday life and special occasions.

Customer Segments, Customer Relationships, and Channels

MQ targets men and women in a mental age between 30 and 40, who are living an active and social life with many interests. Additionally, the target customer is often interested in fashion and in need of stylish clothes for work (MQ 2014). The company establishes and maintains relationships with their customers during their purchasing processes through various channels, both personal and more standardized. When customers are in the stores retail associates offers personal service, while for online shoppers the relationship is shaped through more standardized communication channels via the webpage and through a chat function attached to the web shop.

Customers have access to customer service, both during and after a purchase, which represents another channel enabling communication with customers. For customers who order clothes online, they can either pick up their order in a selected MQ store or at delivery points that are located at convenient locations such as grocery stores or kiosks, which are not operated by MQ. In addition to their regular stores, MQ also operates three outlet stores where discounted items are sold.

MQ also uses additional channels such as advertising, webpage, emails, Facebook, text messages, TV and magazines in order to create awareness amongst existing and potential customers. Further, in order to create a more seamless experience, MQ has tablets connected to their web shop in the stores, which enable customers to order out of stock items directly from the store. Thus, MQ is operating an Omni-channeling strategy where they use various channels that complement and enhance the value of each other.

Additionally, MQ has a customer loyalty program, here referred to as the Loyalty Club. In 2013, members of the Loyalty Club accounted for almost half of all the purchases in MQ stores. In 2013, the Loyalty Club had 530 000 members, a figure that increased to 561 000 in 2014 (MQ 2013 ; MQ 2014).

Revenue Streams and Cost Structure

MQ's main revenue stream is sales of clothes and accessories. Staff and purchasing represent the primary costs but other activities, such as marketing and distribution, also play a role. In order to increase profitability, MQ has recently undertaken a strict action program in order to reduce costs and increase sales. Since 2010, MQ is publicly traded, listed on the NASDAQ OMX Stockholm.

Sustainable development

In addition to the nine building blocks of the Business Model Canvas, MQ's sustainability efforts are worth mentioning in this context. The company strives to integrate sustainable aspects into the areas of their business.

MQ joined the BSCI, Business Social Compliance Initiative in 2007 for the purpose of improving working conditions throughout their supply chain. In regards to the environment, the company aspires to reduce carbon dioxide emissions during transportation. Thus, they have made an active choice to limit the amount of air transport. In addition, MQ strives to reduce the amount of harmful chemicals in their clothes. MQ is also working to incorporate more sustainable materials in their production. The main focus is on organic cotton, recycled cotton, recycled polyester, and lyocell. In 2014, the amount of sustainable materials was 18 %, and this number is something that MQ strives to increase (MQ 2014) Related to this, MQ is a member in Better Cotton Initiative (BCI) aiming towards increasing the usage of sustainable cotton (MQ 2014).

Further, MQ is a part of NÅÅ, Nätverket för Återanvändning och Återvinning av kläder och textil (The Network for Reuse and Recycling of Clothes and Textile), and T4RI, Textiles for Recycling Initiative, which are initiatives to close the loop within the textile industry and thereby reduce the usage of and dependency on limited resources (Ekström and Salomonson 2012). MQ joined both NÅÅ and T4RI to find solutions regarding how to increase reuse and recycling of textiles in collaboration with the other participants (Hedström 2014). Through these collaborations, MQ gained some additional insights regarding recycling and reuse of clothing, but the company has not yet reached a complete solution nor developed a complete strategy regarding this issue (Ekström and Salomonson 2012).

In order to get a more comprehensive, view of MQ's situation, an overview of the external factors affecting MQ is provided in the next section.

4.2 External Factors

In this section, the company's external environment is assessed by means of a PESTEL analysis and the Porter's Five Forces framework.

As a part of increased levels of consumption in general, the consumption of clothes and footwear per person in Sweden increased more than 50 % during the first decade of the 21st century, before stalling in 2011 (Ekström & Salomonson 2012 ; MQ 2014). However, since 2012 there yet again is a positive growth, which is projected to continue until 2018 (MarketLine 2014). The annual

industry value is shown in Figure 16 below. Furthermore, womenswear make up for the majority of the industry value, 54.3 % of the total market in 2013, followed by menswear and childrenswear (MarketLine 2014).

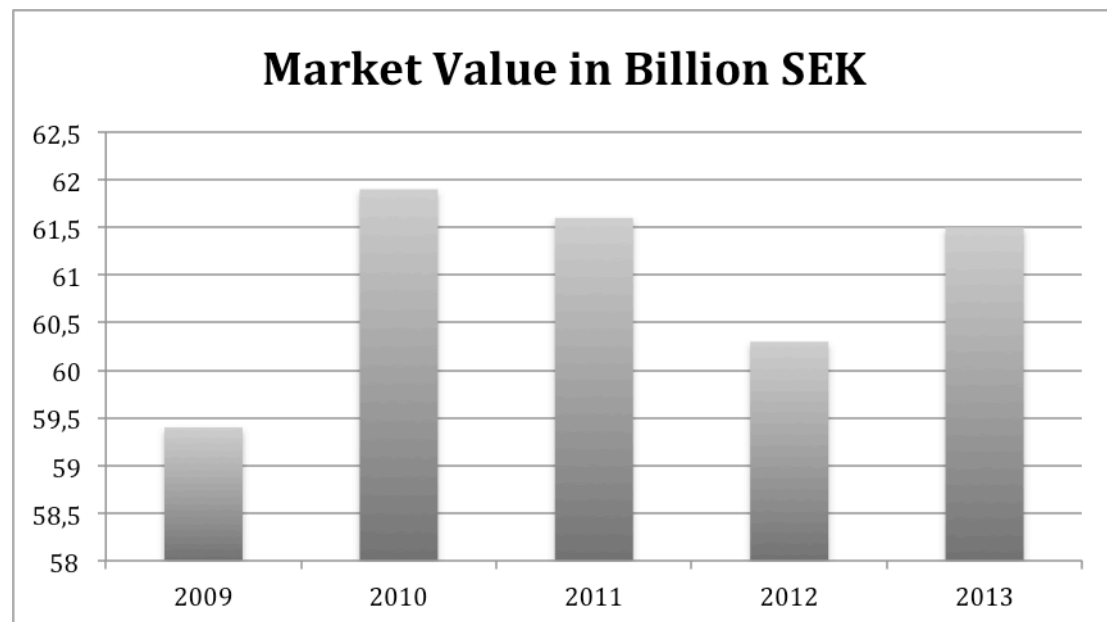


Figure 16 The annual market value of the Swedish Apparel industry in SEK Billion

In this section, the clothing industry is further analyzed in order to assess the landscape in which MQ is operating. This section will start with an analysis of the macro environment, through a PESTEL analysis; thereafter the microenvironment will be analyzed using the Porter's Five Forces framework.

4.2.1 Macro Analysis

The macro analysis is done by identifying factors in the political, economic, social, technological, environmental and legal environment surrounding the business thus creating opportunities and threats.

Political and Legal Factors

Regarding the political and legal factors, this is partially discussed in Chapter 2.4 Proposed Milestones and Future Regulations. Further, Naturvårdsverket is investigating future policies that might lead to more sustainable consumption and production. Extended Producer Responsibility systems is one of the potential actions that Naturvårdsverket are investigating, but it is not certain that this will be recommended since other actions might be better suited for the situation. Further, it is likely that potential regulations based on these recommendations will be implemented at the earliest in 2017⁵.

Three additional areas have been identified as critical to consider regarding legal and political factors affecting the textile industry; the rights of the workers in textile factories and various regulations posed by authorities on different levels. Additionally, political decisions regarding taxes influence households' disposable income as well as costs for the companies within the industry.

⁵ Yvonne Augustsson, handläggare Naturvårdsverket 17 mars 2015.

Considering the rights of the workers, a large portion of products within the textile industry is manufactured in low-cost labor regions. Despite an increased focus on the rights of the workers, there are frequent instances of unfair and alarming conditions (Human Rights Watch 2014). Further, regulations regarding chemicals used in clothing production are another factor to consider, since chemicals that are hazardous for people and the environment can be banned. (Chemical Watch 2014).

Traditionally, Sweden has had a high tax rate and a vast focus on welfare. But, in recent times, this has changed slightly, taxes are lower and the disposable income has risen (The Economist 2012). However, since a new government took office in 2014, changes in expenses could occur for companies such as the repeal of the reduction in social expenses for youth labor (Socialdemokraterna 2014). Moreover, Miljöpartiet, who together with Socialdemokraterna currently constitute the Swedish government, is pursuing an environmentally friendly economy. For example, limited resources reuse, recycling, and closed loops are mentioned in their party manifesto. Thus, their increased power might affect changes in this direction (Miljöpartiet de gröna 2015).

Further, two recently launched EU-directives considering requirements on transparency of companies' sustainability efforts will soon be implemented in Swedish law. The first directive requires certain companies to report non-financial statements regarding for example the environment, social conditions, and respects for human rights (EY 2015a). The second directive concerns requirements regarding energy audit, which leads to companies being required to map their energy consumptions and report it to the authorities (EY 2015b).

Economic Factors

Compared to the OECD average, Sweden has a relatively high average income per household (OECD 2015). In addition, the disposable income has risen over the last several years. The disposable income, which is the personal income after taxes, per person in the ages 25-34 and 35-44 is shown in Figure 17 below. (SCB 2014a). Furthermore, in 2012, Clothing and Footwear accounted for about 4 % of the households' expenses (SCB 2013). However, the recent economic crisis affected customers' spending behavior to a great extent. Generally, shopping is one of the first areas where people cut costs and change their preferences (Leinwand et al. 2008).

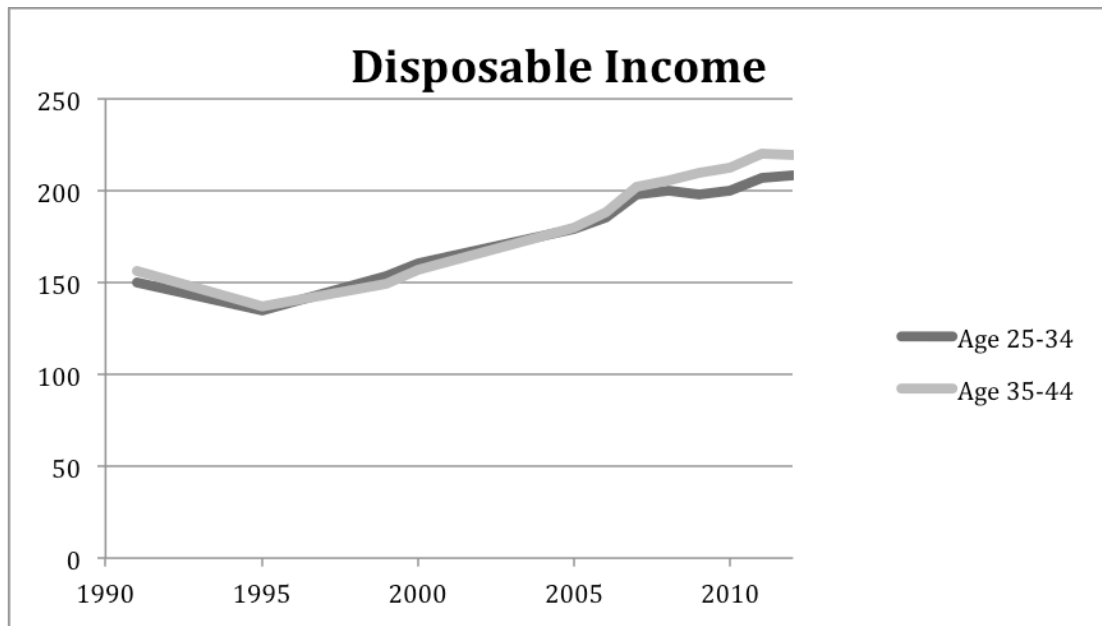


Figure 17 Median disposable income in thousands SEK, 2012 prices

Socio-Cultural Factors

Consumption's role as a way to increase social status has risen during the last years. Status derived from consumption is increasingly substituting professional status. Recently, there has been an increased focus on so-called *fast fashion*, which is characterized by shorter life cycles, and an increased number of seasons per year. The trend towards fast fashion is likely contributing to increased consumption (Ekström & Salomonson 2012). Second hand consumption has also increased during the last couple of years (Hernell 2014).

Technological Factors

The vast majority of people in Sweden have computer and Internet access in their homes. As an illustration, 98-99 % of the population in the age 25-44 has Internet access in their homes (SCB 2014a). Additionally, the increased use of the Internet and technological devices has altered customer behavior. Nowadays, customers are often comparing options from several vendors before they make purchase decisions (Infosys 2014).

The portion of the population in ages 25-44 who, during the time period of a year has bought clothing or sporting goods for private use through web shops rose from around 10 % in 2003 to above 50 % in 2013, as shown in Figure 18. (SCB 2014b).

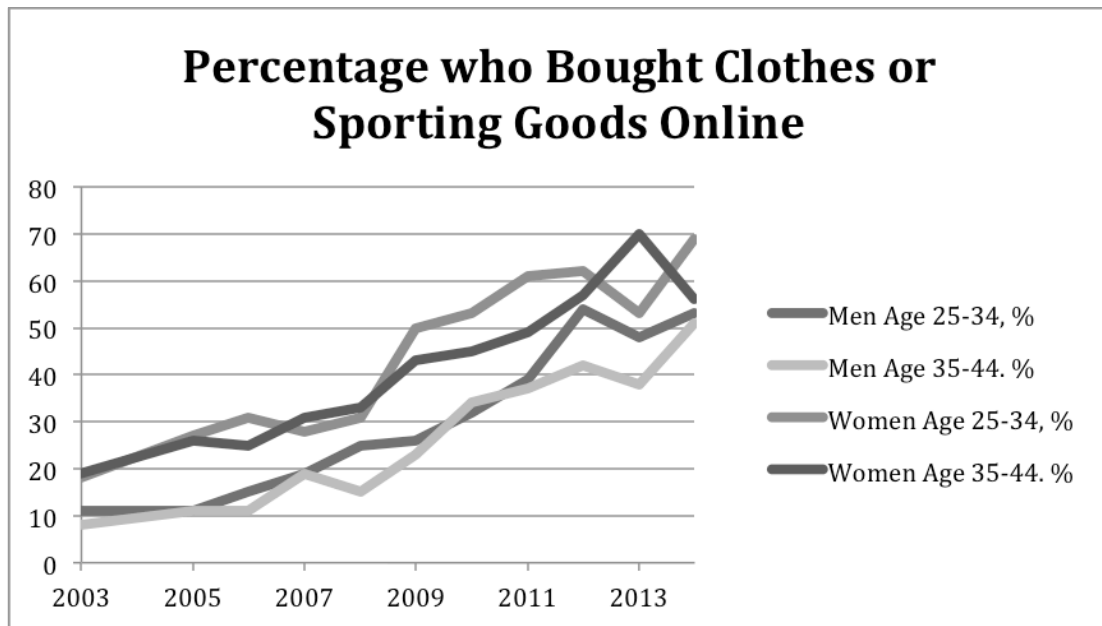


Figure 18 The percentage of men and women in different age groups that bought clothes or sporting goods online

Environmental Factors

Sustainability has been considered important in Sweden since the 1960s. This has, among other things, led to a high percentage of renewable energy in the country and between 2013 and 2016 around 22 billion SEK will be allocated to environmental efforts (Official Site of Sweden 2015). In addition, the EU has set goals for an increased focus on sustainable development for textile trading with China (European Commission 2014b). Moreover there are, as mentioned, plans in EU to submit a new circular economy package in 2015 (Crisp 2015b).

Furthermore, an increased focus and demand for environmentally friendly alternatives could be observed as the Swedish customers become more aware of the need for a sustainable development (Ekström & Salomonson 2012). The current end-of-life treatment for textiles is further described in Chapter 2.3 Current End-of-Life Treatment for Textiles.

4.2.2 Industry Analysis

In order to analyze the microenvironment, Porter's Five Forces is used as a framework. The result is shown in Figure 19 below.

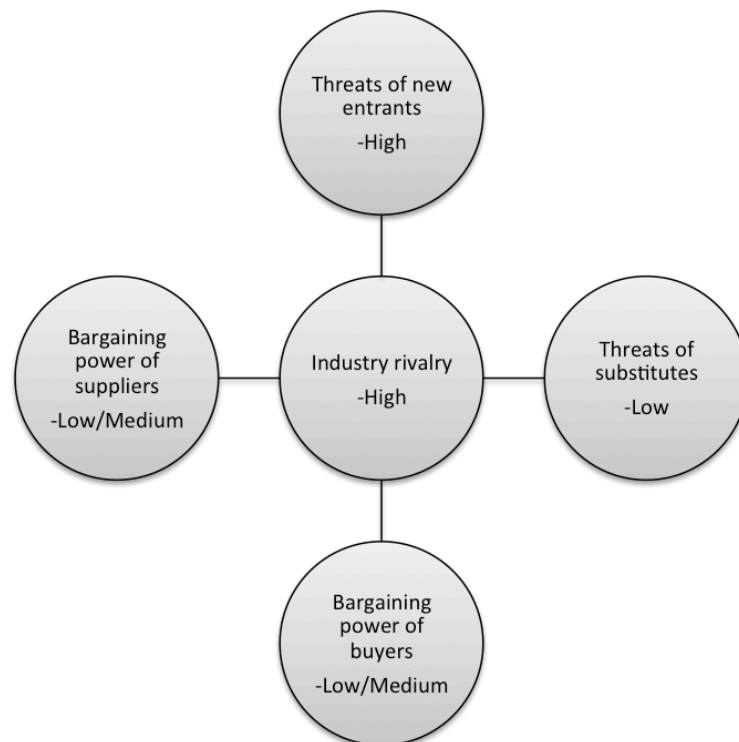


Figure 19 Porter's Five Forces of the clothing industry

The industry has many customers, who have a lot of options and low switching costs. However, since each buyer generally makes purchases of relatively low value, they cannot individually put much pressure on companies in the industry. Thus, the loss of one individual buyer is not likely to have great impact on the company's revenue, even though actors in the industry are highly dependent on their buyers for survival. Therefore, the bargaining power of buyers is rather low (MarketLine 2014).

Considering suppliers, the vast number of available manufactures of clothes lowers the suppliers' bargaining power. However, changing suppliers can induce great switching costs, which increases the suppliers' power. MQ is aiming to build close relations with its suppliers in order to create trust and reduce the risk of suppliers acting opportunistically (MQ 2014). But, this is predominately valid for MQ's proprietary brands since the purchasing process for external brands is different. Regarding external brands, these suppliers might have greater power. MQ could choose not to sell a specific brand, but this can potentially lead to decreased customer satisfaction. This leads to the conclusion that the bargaining power of suppliers is medium in general, but slightly lower regarding the proprietary brands.

Since there are few barriers to entry, the threat of new entrants is considered strong (MarketLine 2014). Additionally, one of MQ's main competitor categories is independent stores, which are assumed to be less difficult to start than discount chains since they likely require less capital to start (MQ 2014). Furthermore, Internet enables companies to start operating within the industry without any significant start-up costs. However, the slow growth of the industry lowers the attractiveness for new entrants (MarketLine 2014).

Considering substitutes, there are no clear substitutes to clothes. But regarding stores, boutiques, and ecommerce stores, there are a great number of options for various channels (MarketLine 2014). Thus, the threat of substitutes is deemed low.

The Swedish clothing industry is characterized by fierce competition and the increased use of ecommerce has led to even greater competition lately (MarketLine 2014 ; MQ 2014). Most actors in the clothing industry could be seen as competitors to MQ, since they all compete for the customers' money and customers do not tend to be loyal to one fashion retailer. However, other stores of various sizes that provide similar selections of brand as MQ does can be categorized as more significant and direct competitors (MQ 2014). Additionally, other products and experiences that compete for leisure money such as restaurants and cinemas are indirect competitors. Thus, the degree of industry rivalry is high.

When examining MQ's position, it is important to consider the future trends in addition to the current state. In the next section, some general trends in the retail industry will be further described.

4.3 Trends in the Retail Sector

At the National Retail Federation's annual Retail's Big Show 2015, some general trends for retail development were observed. For example Omni-channeling, use of Big Data analytics, personalization, increased use of new technologies, and customer-driven and centric development were identified as focus areas (8th & Walton 2015).

Customers are increasingly expecting an integrated and seamless experience that Omni-channeling entails (8th & Walton 2015). There is a trend towards smaller physical stores and integration with technology and web shops. Regarding physical stores, temporary stores at temporary locations, such as pop-up shops are used to an increasing extent (PWC 2012).

There is also a trend towards personalization and individualized messages to customers. Additionally, increased competition from non-store retail, such as web shops, has led to an increased need for positioning for the physical stores. But, one-on-one sales strategies are seldom profitable in a retail setting. Thus, using data in order to understand why and how customers buy certain items is likely to become an important complement to good sales staff (PWC 2012). The increased trend towards non-store retailing could also lead to closing of physical stores for many actors (Thau 2015).

Further, the use of Big Data analytics leads to new ways of creating and communicating offerings to customers. Big Data is gaining more attention, but currently many companies within the retail industry are having problems finding ways to capture and utilize the data in an optimal way (8th & Walton 2015). According to PWC (2012) the rate of technological change is one of the drivers of changes in retailing, with examples related to Big Data analytics and regarding how and to what extent customers are using technological products.

New technological solutions span from integration of online and physical stores via in-store tablets to sending customers customized in-store alerts through their mobile devices. This leads to an increasingly personalized experience for the customers and a more seamless experience (Thau 2015).

According to PWC (2012), customers are increasingly putting pressure on retailers, retailing is becoming more customer-centric, and trends are customer-driven. For example, the supply chain is predicted to become increasingly customer-driven, where better accuracy, more information and demand-driven supply are important aspects.

In addition, a few of the observed trends are related to customers' changing behavior and their preferred way of receiving information and advertisements. Today's customer has more ways to research different options than ever before. This has led to a more complex decision making process. Moreover, customers are demanding more personalized offerings, even for products that are not traditionally customizable. In addition, many customers are actively avoiding advertisements, which affect the communication possibilities between the retailer and its customers (8th & Walton 2015).

A couple of examples of other trends are a more widespread exploitation of the trends towards customers to become more health-conscious and a trend towards broadening the experience for customers through offering food or coffee in stores (Thau 2015).

In addition to trends within the retail sector, it is important to examine trends in the society overall as it might indicate changes in customers' behavior. This will be further discussed in the next section.

4.4 Technology Trends

Here, some current trends will be discussed. The main areas will cover social media, sharing platforms, virtual reality and gamification.

First, it is becoming more prominent that every company today is a tech company (Safian 2015). No matter in what industry companies compete, technology is essential. Another area that is gaining attention is how to create value through social media (Butler 2014). Besides creating value through technology and social media, the trend of Big Data, mentioned as a trend within the retail sector, is also an important trend that could be observed in industries overall. (Lavine 2015).

Furthermore, the sharing economy and online platforms are gaining traction. Two examples of new business models that successfully have been riding the platform trend are Uber and Airbnb. Both these companies rely on peer-to-peer models that are threatening traditional businesses within their industries (Drell 2014). Another trend related to online platforms is crowdfunding. Jordan (2015) argues that crowdfunding is evolving from a more occasional experience into a mainstream activity. A quote that has been circulating online lately and describes the business climate of today is the following:

In 2015 Uber, the world's largest taxi company, owns no vehicles; Facebook, the world's most popular media owner, creates no content; Alibaba, the most valuable retailer, has no inventory; and Airbnb, the world's largest accommodation provider, owns no real estate⁶.

Virtual reality is another area that is brought up by many as an important trend. Dixon (2015) argues that thanks to technological progress during the latter years, Virtual reality is ready to become more widely used. Milnes (2015) asserts that virtual reality can be used in different applications such as in-store, online and on mobile in order to provide the customers with a consistently branded experience.

Finally, gamification is another trend emerging within many industries. Butler (2014) explains that many US retailers are starting to deploy online gaming mechanics as point scoring, treasure hunts and reward systems. This encourages customers to share their retail experiences across different medias and engage more actively with the brand. This trend can also be seen in Sweden. For example, Clarion Choice Hotels' introduced "Äggjakten" where the participating hotels hide golden eggs in Gothenburg and Stockholm for customers to find in order to win different prizes. Special hash tags exist for the hunt and people are encouraged to share their hunting experiences on Instagram and Facebook (Clarion Post 2015).

⁶ Goodwin T. (2015) The Battle Is For The Customer Interface. Techcrunch
<http://techcrunch.com/2015/03/03/in-the-age-of-disintermediation-the-battle-is-all-for-the-customer-interface/> (April 20th 2015)

5 Empirical Findings

In this chapter, the findings regarding new materials and technologies enabling the circular economy, trends of the circular economy, other actor's transitioning to the circular economy, interviews regarding customer behavior and evaluation of the identified opportunities are presented.

5.1 New Materials and Technologies Enabling the Circular Economy

Even though a variety of new, more sustainable materials have been introduced over the last several years, few have gained traction yet. In this section, a few examples of companies that are developing new materials and recycling technologies suitable for the circular economy will be briefly described.

Table 2 below illustrates some examples of companies offering sustainable textile materials. Besides these examples, materials based on cellulosic fibers, such as lyocell, are used as environmental friendly options within the textile industry (Mass 2015).

Table 2 Actors offering sustainable materials

Dutch aWEARness	Qmilch	Ananas Anam	CRAiLAR
Offer milk and cellulose based materials, as well as recyclable polyester. (Dutch aWEARness 2015)	Uses unmarketable milk to create a material called Qmilk that can be used for clothing (Qmilch 2015).	Has developed a sustainable leather-substitute called Piñatex. The material is based on fibers from pineapple leaves (Ananas Anam 2015).	Produces fabrics based on flax, and are planning on launching materials based on hemp as well. This process separates the flax to a greater extent than previously possible. Thus, the material gets other properties than traditional linen. (CRAiLAR 2015)

Besides environmental friendly materials various companies engage in order to develop techniques enabling easy recycling and reuse of used materials. Non-comprehensive descriptions of a few of these companies are summarized in Table 3 below and are described further in the following paragraphs.

Table 3 Companies that have developed techniques that enable the circular economy in the textile industry

Company	About	Input	Output
Re:newcell	Re:newcell has developed a technique for recycling cellulose-based materials ⁷ .	Cellulose-based material ⁸ .	Cellulose- based fibers of equally good quality as the original fibers ⁹ .
SOEX group	SOEX is the worlds largest textile sorting and recycling group. I:CO is a part of the SOEX group (SOEX Group 2015).	Essentially any kind of textiles (I:CO 2015b).	Second hand clothes and other products, such as insulation materials (I:CO 2015a).
Teijin	Teijin has developed a recycling system for products made of polyester (Teijin 2015).	Used Polyester (Teijin 2015).	New polyester fabric of equal quality (Teijin 2015).

First, Re:newcell is a Swedish company that has developed a technique in order to recycle clothes with a high level of cellulose-based material. Re:newcell collaborates with Wargön Innovation. Wargön Innovation help innovations out of the lab, by offering skills and infrastructure allowing the companies to produce products in pilot volumes, and hopefully become commercially viable (Wargön Innovation 2015). Currently, only two dresses have been manufactured of materials recycled with Re:newcell's technology but with help from Wargön Innovation the plan is to scale up production by building a small-scale production site in the fall of 2015¹⁰.

Second, SOEX is the worlds largest textile sorting and recycling group. It pursues collection, marketing recycling and reuse of used textile. (SOEX Group 2015) Today, it processes more than 700 tons of material each day and is active in more than 90 countries (I:CO 2015a). I:CO is a part of the SOEX group. Through collection boxes and counters in stores, I:CO collects used items that are sorted depending on condition. The items are thereafter, recycled, reworn, reused, or upcycled. I:CO partners with large clothing chains and brands, such as H&M, KappAhl, Forever 21 and Puma. (I:CO 2015a ; KappAhl 2015)

Third, Teijin is a Japan-based chemistry company, which partly works with recycling and has about 150 partner corporations in different geographical locations. Regarding clothing, Teijin has developed a method to refine used polyester into new polyester of equal quality as new, petroleum-based polyester. The project is called ECO CIRCLE, and aims to develop a closed-loop system (Teijin 2015).

With possible opportunities in mind, the trends of the circular economy are important to assess since they affect what opportunities to pursue, to what extent, and when investments should be made. In the next sections, trends of the circular economy are therefore assessed.

⁷ Stig Fredriksson (Project manager, operation and organization, Wargön Innovation) interviewed by the authors 16th of April 2015.

⁸ Ibid

⁹ Ibid

¹⁰ Ibid

5.2 The Trend of the Circular Economy

In this section, the trend of the circular economy is assessed through examining the media coverage and search history for “*Circular Economy*” and other related search terms. The assessment of media coverage is based on the search engine at Chalmers Library and Google Trends. Considering the search engine at Chalmers Library the number of news articles published between December 1994 and December 2014 are included, while only results from 2004 and onwards is available and included from Google Trends.

First, trends of the circular economy in general are assessed. Thereafter more industry specific search terms are evaluated and trends in search terms related to customer behavior are presented. Finally, areas affecting the future development of the circular economy are assessed.

5.2.1 General Development of the Circular Economy

Starting with the search term “Circular economy”, the media coverage is shown in Figure 20 below.

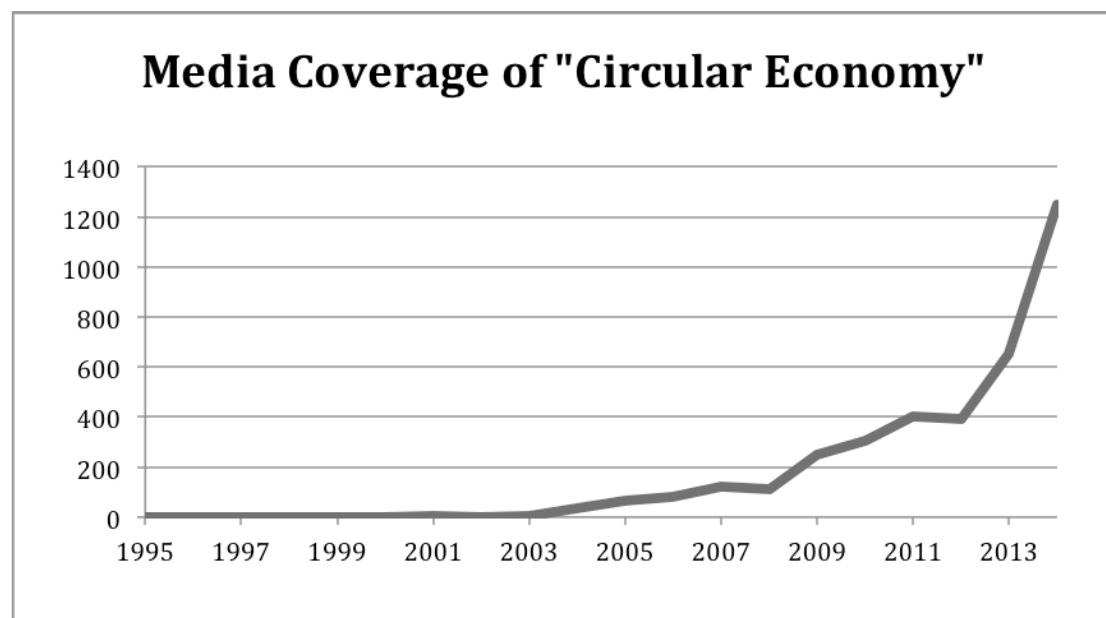


Figure 20 Media coverage of "Circular Economy" in terms of the number of articles in Summon.

As can be seen in figure X, “Circular Economy” has gained increased attention over the last years. The media coverage of the circular economy started gaining traction in 2004, with 37 publications. Following a rather exponential pattern, the number of publications has heavily increased each year over the last years. Further, approximately one third of the publications regarding the circular economy in the Summon database were published in 2014 (Chalmers Library 2015).

Moreover, examining the search interest on Google, a similar trend can be observed. The number of searches on the circular economy has vastly increased over the last several years. As can be seen in Figure 21 below, the interest started in 2005. A couple of years later, in 2007, the interest became more steady and after 2010 an upwards trend can be observed. The search interest peaks at the end of this measurement, in February 2015 (Google Trends 2015a).

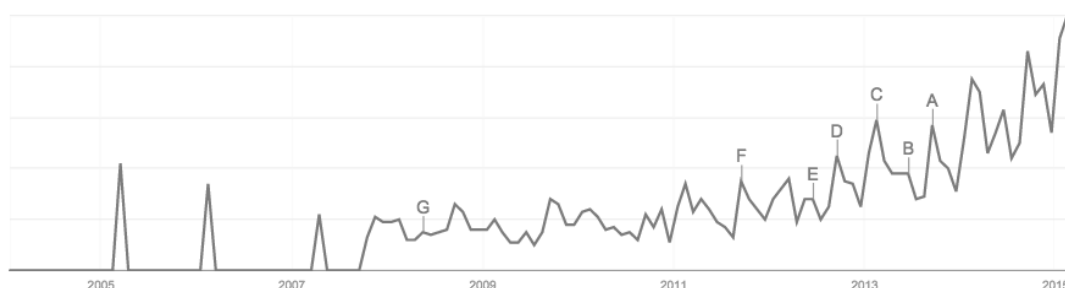


Figure 21 Search interest for search term "Circular Economy", from Google Trends

However, there are other concepts that are similar to "Circular Economy" in certain aspects, one of these is cradle-to-cradle. In Figure 22 below, the media coverage of "Cradle-to-Cradle" is compared to that of the circular economy.

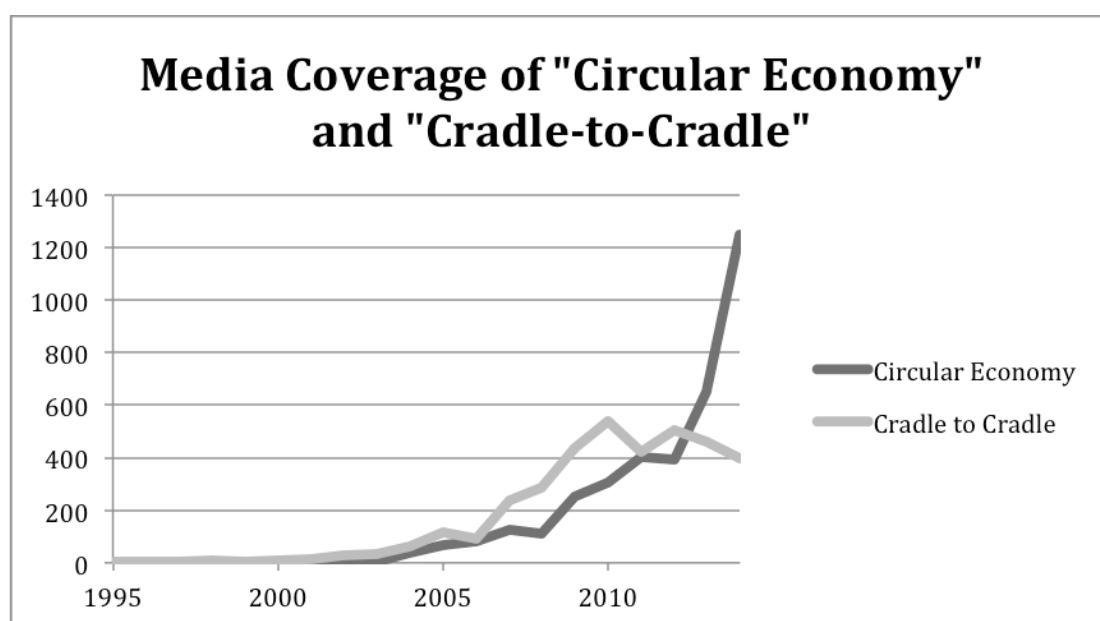


Figure 22. Media coverage of "Cradle-to-cradle" and "Circular Economy" in terms of the number of articles in Summon

As can be seen in the figure, the number of publications including "Cradle-to-Cradle" increased from 1995 to 2009, but has decreased since then. The total amount of publications in the Summon database is similar for "Circular Economy" and "Cradle-to-Cradle". However, while the circular economy has shown an exponential growth with more than one third of all publications in 2014, the cradle-to-cradle concept has followed a slightly different pattern, peaking in 2009, which represents about 15 % of the total amount of publications (Chalmers Library 2015).

Further, as can be seen in Figure 23, the Google search trends for “Cradle-to-Cradle”, shows a different pattern than “Circular Economy”. The attention of cradle-to-cradle in Google searches peaked in 2007, and has followed a slightly negative trend since then (Google Trends 2015b). Regarding media coverage in terms of number of articles in Summon, a shift where “Circular Economy” gets more attention than “Cradle-to-Cradle” can be observed in 2013. For search interest, this shift has not happened yet, even though the trends indicate that a shift might happen in the future.

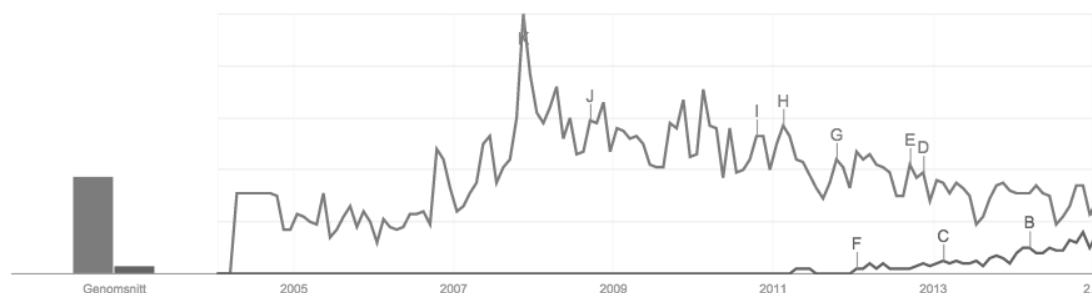


Figure 23 Search interest of the search terms "Cradle-to-cradle" (upper line) and "Circular economy" (lower line) in comparison to each other, from Google Trends

5.2.2 Development of the Circular Economy in the Textile and Packaging Industries

An industry where the circular economy has gained attention and several companies have switched to a circular model is the packaging industry (Food Packaging Bulletin 2014). In contrast to the textile industry, the packaging industry possesses properties such as a high degree of recyclable materials and developed recycling mechanisms, which make it suitable for the circular economy.

The media coverage of the circular economy in the textile industry took off in 2004, and has shown a positive trend since then. (Chalmers Library 2015). The media coverage of the circular economy in the textile industry and the packaging industry is shown in Figure 24 below.

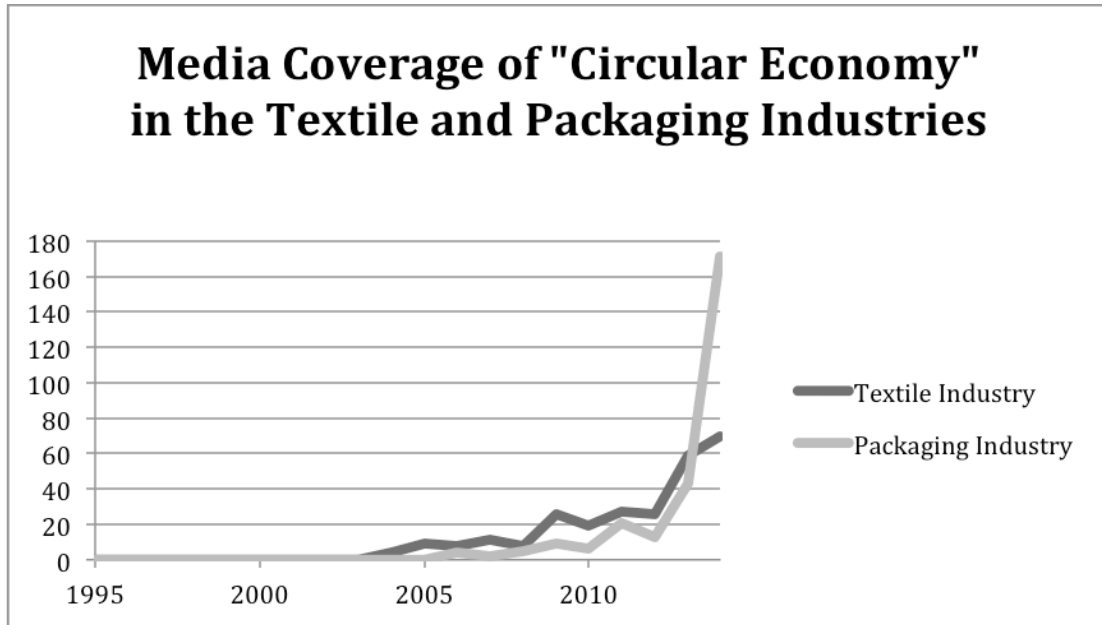


Figure 24 Media coverage of "Circular economy AND clothing OR textile OR fashion" in comparison with "Circular economy AND packaging". Based on number of articles in Summon.

As can be seen in the figure, the media coverage of the circular economy in the packaging industry follows a more aggressive pattern than the media coverage in the textile industry. Over 62 % of the articles regarding the circular economy in the packaging industry from the last 20 years are from 2014 (Chalmers Library 2015).

5.2.3 Customer Awareness of the Circular Economy

To assess customer interest in sustainability within the textile industry the Google trends for recycling clothes, organic cotton, and lyocell will be presented. Starting with the Google search trends for recycling clothes, these are shown in Figure 25 below. Recycling clothes gained much attention in 2005, after which the interest went down. Since 2006, the search interest has followed a positive trend that seems to have stagnated over the last couple of years (Google Trends 2015c).

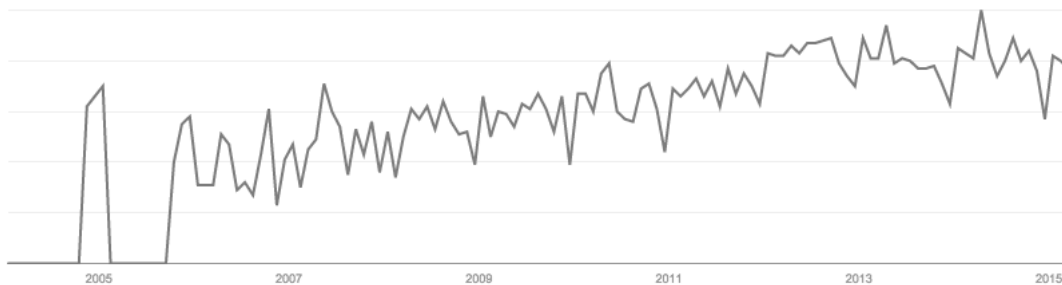


Figure 25 Search interest of the search term "Recycling clothes", from Google Trends

Further, organic cotton is a well-known material, produced according to organic standards that are internationally recognized and is widely used among textile companies (Organic cotton 2015). Similarly, lyocell is also well known and used within the industry. Both materials are commonly mentioned in sustainability contexts. However, organic cotton is not often mentioned in the context of the

circular economy. But as the search interest of these materials aims to serve as an indicator of sustainable awareness of the population at large, not about the circular economy per se, these terms were used.

Considering the Google search trends for organic cotton and lyocell, shown in Figure 26 below, it is clear that organic cotton is getting more attention than lyocell. Searches for organic cotton peaked in 2008; thereafter it showed a negative trend for several years. However, during the last couple of years, there seems to be a slightly positive trend. As for lyocell, the interest showed a flat trend until 2009, and is now showing a marginally positive trend (Google Trends 2015d).

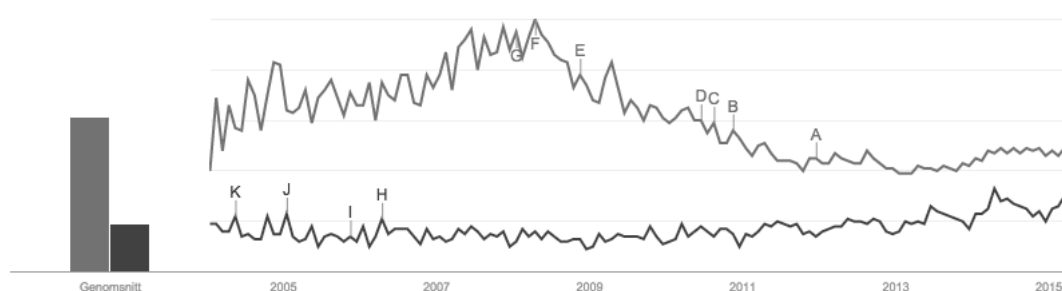


Figure 26 Search interest of the search terms "Organic Cotton" (upper line) and "Lyocell" (lower line) in comparison to each other, from Google Trends

5.2.4 Factors Affecting Future Development

There are factors that might affect the diffusion of the circular economy. One of these factors is the legal aspect, which can both hamper and foster the diffusion of circular business models. Today, as previously mentioned, textile waste is legally classified as household waste in Sweden, and thus the municipalities are responsible for it. Fredriksson¹¹ argues that the classification of used textiles as household waste is unfortunate, and that textile waste instead should be classified as raw materials, for which commercial alternatives for handling should be allowed. The municipalities' monopoly on waste management leads to that the current legal frameworks regarding textiles and recycling are rather unclear. Promptly speaking, it is unclear whether parts of what both charity organizations and fashion companies do for handling end-of-life textiles is legal or not, since it could be considered waste management.

Moreover, a switch towards a circular economic model may be viewed as a disruptive strategic trend, affecting the ways of creating, distributing and capturing value (Lovins et al. 2013). When a disruptive trend strikes an industry, incumbents often avoid investing in it, as they are dependent on their current customers, who initially often do not demand or seemingly benefit from the innovation. Therefore, the development and diffusion of a disruptive trend is commonly pioneered by new entrants, which later might threaten and outcompete incumbents (Bower & Christensen 1995). In the textile industry today many smaller companies such as Houdini, Nudie Jeans and Klättermusen are pioneering the development towards a circular economy.

¹¹ Stig Fredriksson (Project manager, operation and organization, Wargön Innovation) interviewed by the authors 16th of April 2015.

Further, no examination of the content of the articles quantified above was pursued at this stage. However, multiple of research articles and consultancy reports have been reviewed continuously during the research underlying this thesis. These are all supporting the underlying principles of the circular economy, but simultaneously pointing out many difficulties that needs to be overcome in order for the circular economy to become mainstream.

Even though obstacles exist for the circular economy's diffusion, there are also favoring conditions in the environment in form of proposed milestones and increasing environmental concern among the population. These conditions encourage companies to lead the development towards a circular economy and some prominent companies doing this are described in next section.

5.3 Other actor's Transitioning to the Circular Economy

In order to assess how other actors are focusing on sustainability, and how they adopt principles of the circular economy into their business model, fifteen companies are here briefly examined. Ten of the examined companies are active in the clothing industry on the Swedish market. These are H&M, Lindex, Gina Tricot, KappAhl, Filippa K, Houdini Sportswear, Klättermusen, Gudrun Sjödén, Polarn O. Pyret, and Nudie Jeans. Additionally, five companies active in other industries are examined. These are Renault, IKEA, Vodafone, Tetra Pak, and Philips. The companies' business concepts, and size and reach are presented in Appendix 7.

The fifteen examined companies were chosen after briefly reviewing a larger set of companies, focusing on their sustainability efforts. After this review, a few areas of interest for the purpose of this thesis were identified: using more sustainable materials, prolonging the life cycle, garment collection and reselling, and other actions. The efforts of the examined companies were then structured under these four categories. Further, it is important to note that this section does not provide a comprehensive view of the examined companies' sustainability efforts.

5.3.1 Efforts in the Design Phase

All of the examined companies in the clothing industry aim to increase their usage of sustainable materials. Two of these are Houdini and Filippa K, who both aim to maximize the use of sustainable materials, and create recyclable items (Houdini 2013 ; Filippa K 2013). Filippa K has an integrated focus on sustainability and expresses a want to be a part of the circular economy. To turn production processes more circular and keeping a circular design mindset are among the company's ambitions (Filippa K 2013). By circular design, Filippa K refers to minimizing negative social and environmental impacts already in the design process, and creating long-lasting products, which at the end of their lifetime can be reused or recycled (Filippa K 2015a). Additionally, Filippa K launches a few items called "Front Runners" each season, which are made out of the sustainable material lyocell (Filippa K 2015b).

Moreover, H&M launched its first closed-loop products in 2014. H&M defines a closed-loop product as a product that is made out of at least 20 % recycled material from collected garments (H&M 2013). Another example is Nudie Jeans, which in 2006 set a goal to launch a denim collection with 100 % organic cotton. This goal was reached in 2012 (Nudie Jeans 2015a).

Further, several of the examined companies in the clothing industry recognize that the ability to minimize waste and enable reuse and recycling starts in the design phase. H&M, Lindex and Kappahl all state that they aim to focus on sustainability early in the process. (H&M 2013 ; Lindex 2013 ; Kappahl 2014). Klättermusen is considering the choice of materials in the design phase by for example avoiding mixed materials more than necessary in order to facilitate recycling (Klättermusen 2015). Further, Gina Tricot aims to design clothes for efficient end of life treatment (Houdini 2013 ; Gina Tricot 2013).

Moreover, some of the examined companies in other industries express that they use sustainable material and aim to using it to an even greater extent in the near future. For example, 76 % of the cotton IKEA uses in their products comes from sustainable sources, which they hope to increase to 100 % before August 2015. (IKEA 2014a)

Sustainable materials are not only beneficial for the environment, but for some companies it also leads to financial gains. For example, Renault runs a remanufacturing plant, Choisy-le-Roi, which enables the company to offer their customers reused parts that are 30 - 50 % cheaper than new parts. Additionally, the remanufacturing operations are more resource efficient, and protect Renault from raw material price fluctuations. Currently, Renaults' vehicles are made of almost 30 % recycled materials (McEvoy 2014).

5.3.2 Efforts to Prolong the Lifecycle

Several of the examined companies in the clothing industry are making efforts to educate the customers how to care for their products to make them last longer and decrease the environmental impact during the use phase of the garments. According to H&M (2013) 26 % of the environmental impacts of clothing occur during the use phase, when the owners wash and care for the items. Lindex, Kappahl, and Gina Tricot are also providing care advices on their webpages for their garments (Lindex 2015 ; Gina Tricot 2013 ; Kappahl 2014).

As an effort to further prolong the life cycle of their products, Nudie Jeans operates repair stations in some of their stores, where customers can get their jeans repaired free of charge. The customers can also order a repair kit online, and have access to instruction videos and booklets with instructions regarding how to repair their jeans (Nudie Jeans 2015b).

In addition to care instructions, several of the examined companies in the clothing industry are offering items with timeless design, promoting a longer time of use. Filippa K designs garments with the goal that the customer should want to use them and keep them in their wardrobe for a long time. In addition, they have launched their own line of care products in order to further prolong

the lifecycle (Filippa K 2013). Similarly, Houdini are aiming to design items that can be used for a long time period, in many circumstances, that will not go out of style (Houdini 2013). Polarn O. Pyret is designing high quality clothes in a timeless, unisex fashion, which further facilitate reuse. They also provide spare parts to enable repairing (Polarn O. Pyret 2015a).

Moreover, the examined companies in other industries engage in various ways to prolong the lifecycles of their products. IKEA expresses engagement in order to increase sales of products that contribute to a more sustainable life at home (IKEA 2014a). Renault also has a subsidiary called INDRA that perform upcycling by dismantling vehicles at the end of life in order to utilize resources in form of spare parts and raw materials (McEvoy 2014). This is further described in Appendix 1.

5.3.3 Product Collection and Reselling

The examined companies in the clothing industry that are collecting garments can basically be divided into two subgroups: those who are collecting garments regardless of brands, and those who only collect garments from their own brands. Additionally, some of the companies are facilitating reselling of their garments by operating platforms where customers interact.

Starting with the companies who are collecting garments regardless of brands, two examples are H&M and Kappahl, which are collecting clothes in all their markets in collaboration with I:CO and Lindex, which are collecting clothes in stores that later are donated to Myrorna (H&M 2013 ; KappAhl 2015 ; Lindex 2015). Further, Gina Tricot collects clothes that they donate to Human Bridge, to which they also donates unsold clothes (Gina Tricot 2015).

Further, some of the companies are collecting clothes from their own brand for reselling. Nudie Jeans are also collecting clothes in exchange for discount vouchers. The garments are thereafter either resold, find new use in for example the production of rugs or as upholstering old chairs and sofas, or recycled (Nudie Jeans 2015c). Filippa K allows their customers to return their used clothes, and receive a discount voucher. The clothes are either resold or donated to Stadsmissionen. Filippa K also has an own second hand store in Stockholm (Filippa K 2015c). Houdini encourages their customers to return children's clothes, which later are resold in the stores, in exchange for a discount voucher (Houdini 2013).

Klättermusen has since 2009 been using a deposit system, where the garment has a label with the deposit value on it. The customers can return their products to a reseller and get the deposit back and use it towards buying new items from Klättermusen. The clothes are thereafter resold in their store in Åre or recycled (Klättermusen 2015).

Both Gudrun Sjödén and Polarn O. Pyret are operating online platforms where their customers can buy and sell garments from the respective brands. At Gudrun Sjödén's platform anyone can post an advertisement for free. The prospective buyers can thereafter browse the advertisements and send a

message to the sellers of wanted items, through a form on the webpage. Polarn O. Pyret's platform works in a similar way, but is only open for members of their customer loyalty program. In both cases, the companies are only providing the platforms; they do not take responsibility for the transaction (Gudrun Sjöden 2015 ; Polarn O. Pyret 2015b).

Polarn O. Pyret also arranged an event for the benefit of the World Childhood foundation, where customers were encouraged to turn in clothes they no longer used, which was later resold at an event at the Stockholm central station (RNB 2014). Further, both Kappahl and Lindex recognize that parts of their collection are frequently resold, but they do not facilitate reselling (Lindex 2013 ; Kappahl 2014).

Moreover, many of the examined companies in other industries express that they engage to increase collection of their used products, in different ways. Many of Vodafone's customers regularly replace their devices, why Vodafone has begun offering a service called Vodafone Buyback, which lets customers return their used phones and tablets in exchange for discounts on devices, charity donations, or store credit. The used phones and tablets are then refurbished and resold, if the quality allows it. Otherwise the components are recycled and reused by a partner (Vodafone 2015).

Tetra Pak does not own or operate any collection or recycling facilities, but they consider it their responsibility to ensure that their products are recycled. They achieve this by acting as a catalyst to enable recycling by for example developing a collection infrastructure and recycling infrastructure and by engaging and educating customers (Tetra Pak 2014). Tetra Pak spreads information through collaborations with schools, use of social media, and through awareness campaigns and co-promotions in stores in the US (Tetra Pak 2015).

Additionally, IKEA facilitates reselling of their products for their customers through collaboration with the online platform Blocket.se. IKEA allows the members of their loyalty program, IKEA Family, to post advertisements for free and the advertisements are thereafter shown on IKEA's webpage, as well as on Blocket.se (IKEA 2015).

5.3.4 Other Efforts

Most of the examined companies in the clothing industry are expressing a goal of reducing energy use in their offices and stores and minimizing airfreight. For example, Kappahl aims to use more renewable energy in their operations, and Gina tricot aims to use more electric vehicles for their operations (Kappahl 2014 ; Gina Tricot 2013). H&M also aims to reduce waste from and increase reuse and recycling of for example hangers, packaging and shopping bags (H&M 2013).

Further, Houdini and Filippa K are allowing customers to lease parts of their collections, as a way to decrease the level of consumption. Houdini is letting customers lease certain garments that are meant to be used for example skiing and thus are not by most people likely to be used more than a couple of times per season (Houdini 2013). Filippa K offers some of their garments for leasing. Thus,

they allow their customers an affordable offering and the ability for them to reduce their carbon footprint. The clothes can be leased for four days, to a cost equivalent to 20 % of the retail price (Filippa K 2015d).

The examined companies in other industries have various internal engagements to reduce their environmental impact. For example, many of them aim to decrease their waste and energy usage. IKEA has gained substantial cost savings through different energy efficiency efforts and Vodafone invests in high performance technologies to make their network more energy efficient (IKEA 2014a ; Vodafone 2014). Additionally, Renault collaborates with both suppliers and other partners in order to realize more circular benefits For example; the company has demanded some of their suppliers to provide it with services, instead of traditional products (World Economic Forum 2015).

Further, Philips has explored different solutions for allowing their customers to pay for using the products, while Philips keeps the ownership (Ellen MacArthur Foundation 2015). For example, Philips have had a project where they enabled the client to pay according to a “Pay per Lux” concept, which challenged Philips Lightning to develop a new, more abstract way of delivering light. (Philips 2012) Moreover, Renault leases the battery for their electric vehicles to the customers and recycles it at the end-of-life (McEvoy 2014). Moreover, Vodafone empower their customers to make more sustainable choices through their Eco-Rating scheme that evaluates mobile phones based on their environmental and ethical responsibility. These scores assessed to different phones are then displayed next to the phones in the retail store and in their web shop (Vodafone 2015).

Moreover, IKEA expresses that their long-term goals is to avoid letting any waste go to landfill. The target was originally to recycle or recover energy from 90 % of the waste by the end of the financial year 2015, but due to lack of sufficient recycling infrastructure it has been postponed until 2020. Therefore IKEA aims to support the development of necessary facilities and processes in those areas where this is not in place (IKEA 2014b).

Based on MQ's situation, current trends and conditions, as well as other actor' efforts, various areas of opportunities could be identified. Next section describes these and further examines how they might appeal to MQ's customers based on customer and employee interviews.

5.4 Customers' and MQ's views

Customers' shopping behavior and perceptions of issues related to the circular economy has been assessed in two steps. First, twelve interviews focusing mainly on shopping behavior were conducted in MQ's store on Fredsgatan, Göteborg, on Saturday the 21st of February 2015. Second, twelve additional interviews were conducted in the same store, on Saturday the 27th of March 2015. These interviews were complemented by an online survey with a younger target group.

In this section, the findings from both rounds interviews are presented, along with information from MQ regarding their efforts in related areas. It is important to note that the sample size is rather small, and general conclusions about MQ's customers overall can not be drawn based on these interviews. However, the interviews in combination with information from MQ provide insights regarding some of MQ's customers' thoughts and beliefs.

5.4.1 Interview Round One – Customers' Shopping Behavior

In this step, eight women and four men of various ages were interviewed regarding their shopping behavior, their expectations on MQ and their awareness of sustainability, mainly in relation to clothes. The interview template is presented in Appendix 4.

Customers' Shopping Behavior

Regarding shopping behavior, the interviewees express different purposes for their shopping trips. Some have rather pre-identified needs for specific clothes, whereas others see the shopping experience as a social activity or as entertainment. Several of the female interviewees frequently do research online before visiting the stores to get an idea of what to look for, while most of the male interviewees express a more defined need, such as replacing a blue shirt. Not long before the interviews members of the Loyalty Club had received a discount voucher, and some of the interviewees expressed this as a reason for visiting the store during this particular weekend.

Although most of the female interviewees state that they use the Internet and online stores for research, they all value the ability to try on clothes before the purchase and therefore most often choose to complete the purchase in store. However, one interviewee brought up lack of time and convenience as a reason for making purchases online rather than in store. Most of the male interviewees make their purchases in stores, but sometimes buy items online that are less sensitive to fit, such as sporting clothes or t-shirts.

Some of the female interviewees express a want for clothes with a classic style that they can use for a long time, while others are more sensitive to current trends. Overall, the interviewees make their purchase decision mainly based on fit, design and quality. Only two of the female, and none of the male, interviewees mentioned price as an important factor when making a purchasing decision. Two of the female interviewees also mentioned the brand as an important factor.

Among the interviewees, the female ones express that they go shopping significantly more often than the male ones. The female interviewees estimate that they go shopping approximately every other week, while the corresponding number for the male interviewees is approximately every seventh week.

Regarding for how long the interviewees keep a garment, most say that it largely depends on the character of the garment. It could span from about a year for a low quality and current style item, to several years for more classic and high quality garments. However, most interviewees estimate a typical or average lifetime of their garments to be between two and three years. Some interviewees

state that most often clothes would go out of style before they got worn out, and it is also stated that even though you stop using the garment after one year it usually stays in the wardrobe for one to five additional years.

When asked what they would do if they were handed a magic wand and were able to change anything in the shopping process, the most common answer was that they would like the stores to be less crowded, and the process of scanning the store to be easier. Other suggestions were to keep the music volume down, to get more help and service from the employees, more customization regarding for example lengths, and having a virtual doll online, where the customer could enter their measurements and get a view of how the garment would fit their body already when browsing through the online store.

Customers' Perception of MQ

Regarding the shopping experience at MQ, the interviewees expect the stores to be well organized and inspiring, with service minded retail associates. Additionally, they expect a mix of different brands and clothes for various occasions. They want to find both clothing with classic and timeless design and more short-lived fashion items in the stores. Further the clothes are expected to be of high quality, with good fit and design

Customers' Sustainability Awareness

When asked what they do with clothes that they no longer use, the majority of the interviewees state that they donate them to charity organizations. The main motivation for this is that even if the owner cannot, or does not want to, use the clothes anymore, someone else might. Many also state that it feels better than just throwing it away. Additionally, some also express that clothes that are not in good condition are discarded in the garbage.

Most interviewees donate used clothes to places nearby, due to convenience. This mainly occurs in connection with them cleaning out their closets, when they see an announcement that a charity organization is picking up used clothes in their area or when they hear about someone making a trip to a needing country. Some of the interviewees have previously sold garments that they no longer used, mainly more expensive garments since it is considered more worthwhile.

Few of the interviewees have bought second hand clothes. The main reason for those who have is that they were looking for something special, for example when going to a theme party. The main reasons why they do not usually shop at second hand stores are that it is not a habit for them or that it is considered difficult to find what they are looking for both in terms of style and fit.

Some of the interviewees have bought items from sustainable collections, such as H&M Conscious – Sustainable Style or Lindex Sustainable Choice, but the sustainability aspect is mainly considered a bonus, since they view style and design as more important. One female interviewee expressed that she looked for more sustainable options when buying clothes for her children, to minimize the amounts of toxins that they are exposed to from their clothes.

Although most of the interviewees express awareness and concern about how their consumption affects sustainability, the majority does not reflect upon it regularly. Regarding clothing, it seems as if the social aspect is what first comes to mind, specifically about unequal distribution of resources throughout the world, and the rights of the workers in clothing factories. Some of the interviewees mention that they get reminded about resource limitations and related issues when they for example read an article or see a news-coverage, while the majority says that they seldom reflect on it. Among the interviewees, the females tend to think about limited resources to a greater extent than males.

Most of the interviewees do not believe that more sustainable clothes would affect their lives to a great extent. Several express that it might make them feel better, since they are doing a good thing. However, most seem to think that even if there were more sustainable options available, they would still value other factors as design and fit higher.

Information from MQ to Complement Interviews

In this section additional information regarding the Omni-channeling strategy and the Loyalty Club is presented. This information is gathered through interviews with employees at MQ¹². Starting with the Omni-channeling strategy, this is something that the company puts a lot of effort in today and that they plan to develop further in the future. This strategy includes the usage of various channels such as the webpage, texts, emails, Facebook and Instagram in order to create a seamless customer experience. MQ does not currently have an application for smartphones and tablets, but their webpage is compatible with these kinds of devices.

The sales from the online store are comparable to one of the bigger physical stores. But, of all the visitors on the online store, only a small percentage performs a purchase. This indicates that many people use the webpage for research rather than for shopping. Both in stores and online women account for greater purchase amounts than men, but the difference is more significant online.

Only a limited amount of all the data gathered from the customers' purchases and webpage behavior is analyzed and used to enhance the customer experience, but this is something the company hopes to incorporate further in the near future. From the data available, it could be concluded that there are very few searches for sustainable ("hållbara") or organic ("ekologiska") clothes on MQ's webpage today. However, this is expected since the search field is mainly used for searches of products or brands.

The main purpose of the Loyalty Club is to gain customer loyalty. The more a Loyalty Club member buys at MQ, the more points they gain through the loyalty program. Based on the amount of purchases, the members fall into different categories in the loyalty program, and thereby receive different bonuses and benefits. For example, some members get free alterations to the length of pants.

¹² Fredrik Forsberg (Project Leader, Loyalty Club, MQ retail) Interviewed 3th Mars 2015

The members of the Loyalty Club also get invitations to Loyalty Club events. The events are generally organized locally, with little or no guidance from the headquarters. Furthermore, if an email address or phone number is provided, the members get texts or emails with discounts.

The age of the members in the Loyalty Club is fairly normally distributed, with the peak around the age of 42-45. There are significantly more women in the Loyalty Club than there are men compared to the actual distribution of sales between men's and women's wear. The reason for this could be that households often have a common membership and the women more often are the membership holder. The Loyalty Club is for the moment not used in order to get feedback from customers.

5.4.2 Interview Round Two - Regarding Potential Opportunities

During interview round two, six women and six men in various ages were interviewed. The interview focused on questions related to the identified areas of opportunities. These areas are efforts during the design phase, efforts to prolong the lifecycle of the clothes, garment collection, facilitating reselling, and other efforts. The interview template is presented in Appendix 5. The interviews were complemented with an online survey with 72 respondents, 56 % women and 44 % men, between the age of 20 and 30. Below, the findings from the interviews and the online survey are presented, along with information from MQ¹³ regarding their efforts.

5.4.2.1 Design – Materials

In this section, customers' views as well as MQ's efforts regarding design and materials are presented.

Customers' Views

When making a purchasing decision, the twelve interviewees from the in-store interviews point out price, design, fit and quality as the most important factors. When asked about how they value and evaluate materials in the clothes, most say that this is an important factor. Most state that they feel the clothes before making a purchase decision, while some state that they evaluate the material by looking at it. Several of the interviewees also state that they look at the care label to see the material in the clothes and the care advices. The main reason for this is to avoid certain materials, or make sure that the garments material indicates a quality item and that it is easy to wash and care for. Most commonly, the material is evaluated by a combination of these factors. However, the look and feel of the material is often valued higher than the information on the care label.

Two of the interviewees state that they look at the care label for environmental reasons. One of the female interviewees states that she is concerned with the environment and therefore wants to make a conscious decision based on information on the care label. Further, one male interviewee states that for example organic cotton is a clear advantage.

¹³ Peter Karlsson (Supply Chain Manager, MQ Retail) Interviewed February 2, 20 and 25. Helen Göthe (CSR & Environmental Manager, MQ Retail) Interviewed February 2 and 20.

When asked how their decision factors for purchasing clothes have changed and how they predict them to change in the future, the most common answers are that it has not change and probably will not change, or that it depends on the interviewee's financial situation. Some state quality and design is becoming more important, while price is becoming less important. Additionally, five of the twelve interviewees state that they believe that they will value sustainable options higher in the future. As more and more information about the working conditions and environmental footprint becomes available, they state that these are factors that will be of greater importance.

Regarding the online survey, design, price, quality, and material are pointed out as the most important factors affecting the respondents purchase decisions. This is illustrated in Figure 27 below.

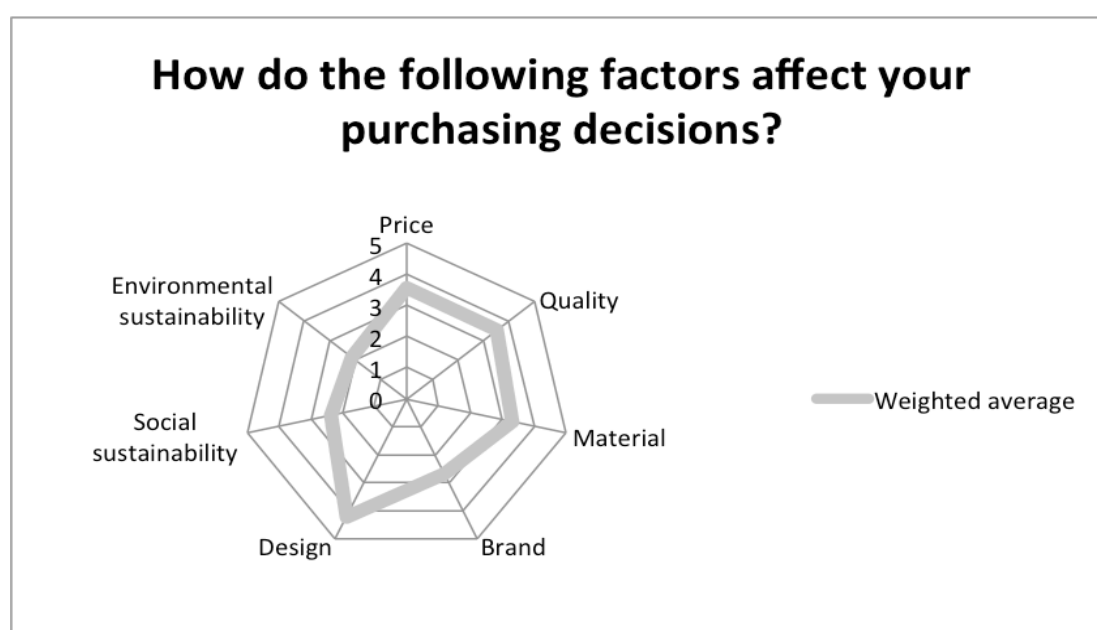


Figure 27 From the online survey: Weighted importance of decision factors related to purchasing clothes

The figure also indicates that social and environmental sustainability are not currently considered very important among the respondents. However, over 60 % believe that these factors will become more important in the future. Further, price is assumed to become less important. Some of the respondents comment that they wish sustainability issues were affecting their decisions to a greater degree, but that other factors such as design and price are more important. One respondent also mentions that sustainability probably would be of greater importance if there were more information available, since it currently is difficult to relate material to environmental sustainability. The respondents' expectations on how their purchasing criteria will change in the future are shown in Figure 28 below.

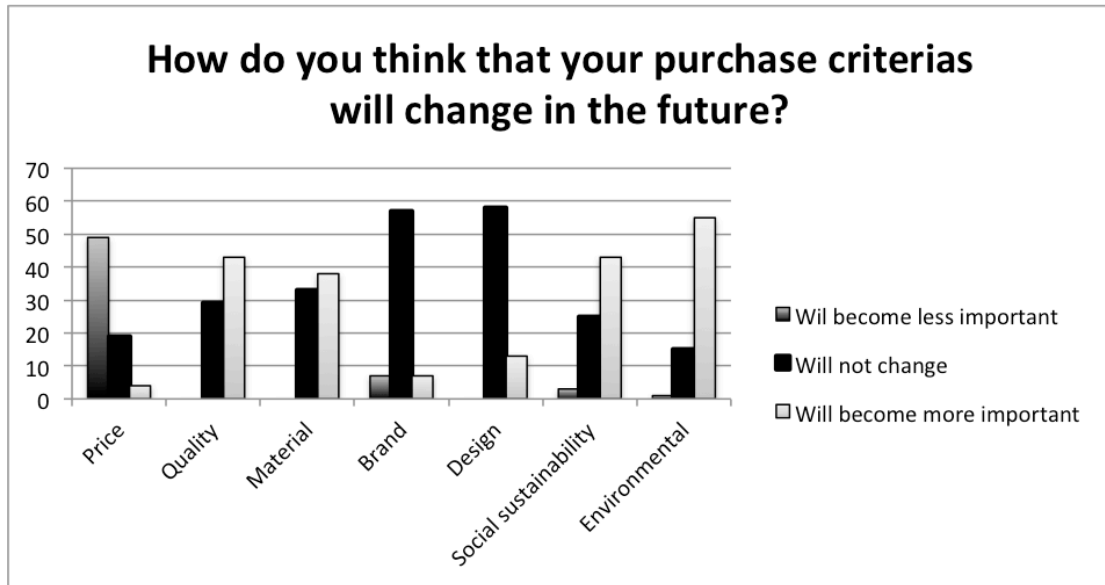


Figure 28 From the online survey: How the decision factors' importance might change in the future

MQ's Efforts

MQ uses a variety of different materials in their garments. The materials vary between different types of garments, and both pure and mixed materials are used. When choosing materials, quality is considered a hygiene factor. Moreover, the materials choice is considered highly important since it gives the item its feel and texture, which together with color and design is important for the items appearance.

Using more sustainable materials is an objective for MQ. However, cost and availability are important factors. Since production is outsourced, the availability of different materials depends on the producers' selections. But, MQ has some power to influence the selection. MQ has also had internal seminars regarding sustainable design, but these have not yet led to further actions.

5.4.2.2 Prolonging the Lifecycle

In this section, customers' views as well as MQ's efforts the lifecycle of clothes are presented.

Customers' Views

The interviewees from the in-store interviews state that they consider the care advice on the care label when they wash their clothes. None of the interviewees are actively looking for additional information regarding how to best care for their clothes, with possible exceptions for more costly and special materials. However, a couple of the interviewees state that even if they do not actively look for it, they are influenced by information when it is handed to them. Thus, when providing additional care advice, this information should be easily available.

Most of the interviewees repair torn clothes from time to time. Most often, they mend minor holes, or are attaching buttons by themselves. A few state that they sometimes let a tailor repair their clothes, mostly for more expensive garments. The most common motivations for repairing clothes is either that it is an item that they like or that it is an expensive item which they want to be able to use for a longer time.

Some of the interviewees state lack of knowledge and the high cost of tailors as reasons why they do not repair torn clothes to a greater extent. It is also considered cheaper and more worthwhile to buy new clothes. When asked what they would like to change in the process of caring for and repairing clothes, most interviewees did not have an answer. However, some stated better quality and durability as desirable to reduce the need for reparations, more knowledge about how to sew, or cheaper and more accessible tailors.

The online survey further indicates that it is common to look at the care label for care advice. Over 50 % of the respondents claim that they rarely do research online or ask the retail associates about care advice, as can be seen in Figure 29 below.

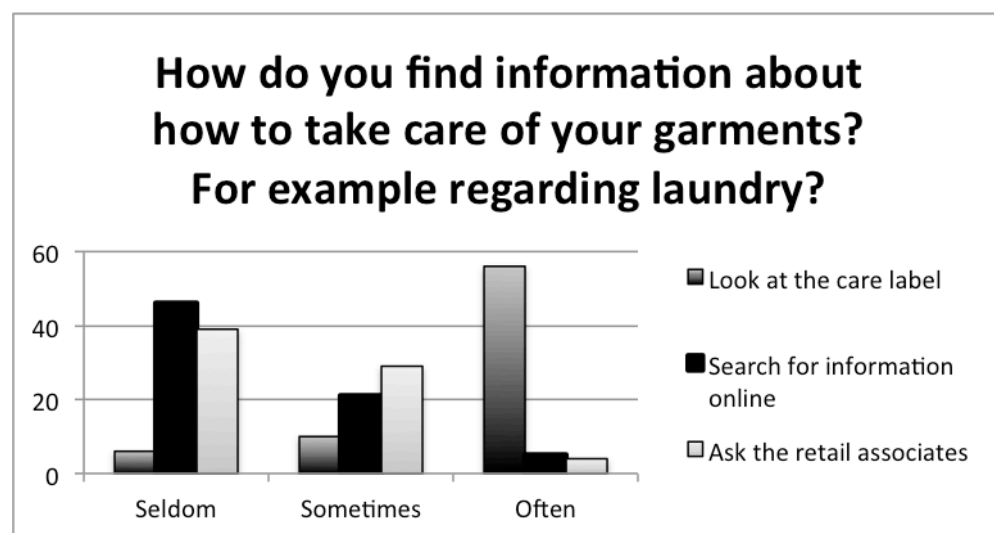


Figure 29 From the online survey: How the respondents get care advice

Regarding reparation of clothes, more than half of the respondents claim that they do repair torn clothes because they want to be able to use them for a longer time. However, 18% claim that they do not know how to repair clothes.

MQ's Efforts

MQ provides information to customers regarding how to care for their clothes through care labels on the clothes, information on their webpage, and information from the employees in stores. The care advice describes the materials characteristics and how to care for the item in order to prolong its life time. MQ are improving and updating their information regarding materials and are educating their employees to be able to give customers more extensive care advice.

Moreover, as mentioned earlier, MQ focuses on high quality and durability of their clothes. Even though there is no defined goal for how long the clothes lifetime should be, the goal is for the customer to be able to use them for a long period of time and basic clothes should also stay fashionable for a long time.

5.4.2.3 Garment Collection

In this section, customers' views as well as MQ's efforts regarding garment collection are presented.

Customers' Views

Similarly to the first interview round, all of the twelve interviewees in the qualitative interviews state that they donate their old clothes to different organizations, collection containers or relatives. The clothes they donate are mainly in good condition and the primary reason for donating is of social concern, that it feels good that someone else can use it. All of the interviewees state that they discard torn clothes in the garbage.

Only a few of the interviewees were aware of that some stores have collection boxes where customers can donate used clothes. But, when informed about it, some of them expressed interest in utilizing these boxes, both in general and potentially in MQ's stores if possible. They claim that collection boxes in stores both makes collection more accessible and serves as a reminder, which could potentially lead to an increased frequency of donations. But, not all interviewees agree, and some argue that collection should be left to the organizations that do it today, since the current solutions are sufficient.

In order to increase the amount of clothes collected for reuse or recycling the interviewees primary request increased availability of accurate information and better accessibility. Regarding information, several of the interviewees say that they expect that the donated clothes are donated to needing people, but they are not sure about what really happens. A few claim that they do not care about this type of information, while the majority argue that they would like to know more about what actually happens with the donated clothes. They believe that information would make them donate more clothes as well as enable them to actively choose where to donate. Some of the interviewees' suggestions regarding how they would like to receive information concerning these matters were through email, films, mailshots, signs and trips to see and follow what actually happens. One interviewee also mentions that incentives such as monetary compensations might increase donations.

The online survey indicates that most of the respondents are aware of where they can donate old clothes, and have a neutral perception of the availability. 15 % perceive the availability as poor, while 26 % perceive it as good. However, as much as 22 % of the respondents do not know where to donate used clothes.

Regarding collection boxes in stores, around 80 % of the respondents claim that this affects their perception of the company in a positive way. None state that it affects the image of the company negatively, but around 19 % state that it does not affect their view of the company. Among the comments some respondents

express hesitancy regarding the stores' actual purpose of collection boxes. Concerns brought up consider whether the purpose of having collection boxes in stores is to improve the brand image, rather than for environmental purposes, and what actually happens with the collected clothes. Further, some respondents also state that it needs to be promoted better in order to make people aware of the possibility to donate clothes in stores.

MQ's Efforts

MQ does not perform any garment collection in stores today, but this has been discussed internally. Some of the main hesitations concerns what kind of clothes and brands to collect, as well as limited retail space. Furthermore, MQ do not want to encourage the fast fashion trend of frequent buying and disposal of clothes. They rather want to act as a good example by producing high quality clothes with long lifetimes. MQ collaborates with Myrorna, where Myrorna collects unsellable items either from stores, or occasionally from the distribution central. MQ contacts Myrorna when needed, who then gather and take care of the clothes and costs related to this processes.

5.4.2.4 Facilitate reselling

In this section, customers' views as well as MQ's efforts regarding reselling of clothes are presented.

Customers' Views

Only a few of the interviewees have previously sold used garments. Those who have, state that they do un-frequently sell used expensive garments. The main reason for why the interviewees do not sell used garments to a greater extent is that it is not perceived to be worth the effort needed. Several of the interviewees associate reselling of clothes with using an online platform, such as Blocket.se, while others associate it with physically encountering potential buyers or reselling in second hand stores.

Regarding reselling via online platforms, many of the interviewees brought up obstacles such as posting pictures of the garments, writing descriptions, answer questions from potential buyers and arrange the actual transactions. Regarding reselling in physical stores, actually going to the store is considered the main obstacle. When asked whether they would prefer to sell garments online or through stores, the interviewees have different opinions and no clear pattern can be observed. However, the common opinion is that the process must be easier in order for it to be considered worthwhile

Only a few of the interviewees have purchased second hand garments. The main argument is a preference for buying new clothes. But hypothetically the interviewees state that they would prefer to buy second hand clothes from physical stores, since they want to be able to ensure the garment's state and quality.

Regarding the online survey, the respondents' main reason for not buying second hand clothes is that they are perceived as unclean. However, some of the respondents commented that they prefer second hand since they can find more unique garments, it is good for the environment, and cheaper. Others state that it is difficult to find desired options and that second hand clothes not always have a price advantage over new clothes.

MQ's Efforts

MQ do not perform or facilitate any kind of reselling of their customers' used clothes.

5.4.2.5 Other Efforts

Another way for MQ to incorporate elements of the circular economy into their business model is to evaluate and improve processes not directly related to the clothes, but related to operational activities in stores and in the headquarter. The company has had different projects in order to decrease its environmental impact. For example, MQ has worked with improving the environmental impact at its headquarters in Gothenburg and in the stores. Examples of efforts at the headquarters are reduced use of paper through duplex printing. In stores, MQ is examining the use of electricity and the use of for example sale signs. Further, all plastic bags are made out of recycled material and the company is aiming to consolidate deliveries from the warehouse to the stores and use environmentally friendly options.

Another area worth considering is packaging during shipment from the manufacturing facilities to the warehouse, and thereafter to the stores. Currently, the majority of the items are packed individually in plastic bags. The cardboard used for packaging is recycled.

6 Analysis

In this chapter, the empirical data is analyzed. First, MQ's current position within the industry is analyzed. Then a trend-analysis is performed in order to gain further insights regarding the timing of investments. This is followed by an analysis of circular initiatives by other companies in the clothing industry as well as in other industries. Finally, customer interviews are analyzed and identified opportunities discussed.

6.1 MQ and the Clothing Industry

In this section, the findings from the situation analysis are summarized and further analyzed. The current strengths and weaknesses should be considered along with the opportunities and threats when identifying and evaluating circular opportunities for MQ.

MQ possesses several strengths, whereof a few will be further discussed here. First, the mix of proprietary and external brands gives MQ flexibility in terms of control of the development of the proprietary brands and being able to complement these with attractive external brands. The outsourced logistics also enhances flexibility, in terms of labor assigned. MQ's demand-driven stocking in stores is also consistent with the trends in the retail industry.

The existing customer relationships and MQ's Omni-channeling strategy are other strengths that MQ holds. Omni-channeling is a trend within the retail industry, and something that customers to an increasing extent are expecting from retailers. The existing customer relationships and channels for communication enable MQ to inform their customers as well as to adapt and develop according to the customers' preferences. Additionally, MQ's incorporation of tablets in stores, which enables customers to order items from the web shop, is consistent with the trend to incorporate technologies in the shopping experience.

Since the customers' options are numerous and their switching costs are low, adaptation to customers' preferences is important in order to stay competitive. The existing customers' values and preferences are important for MQ to keep in mind. However, since the customers' values may change over time, it is vital that MQ do not hamper or neglect strategies that are currently not particularly attractive for their customers, since these strategies may become preferred in the future. The concept of disruptive trends further suggests that MQ's existing customers might become a weakness if the company becomes too dependent on them and therefore neglects promising opportunities that do not appeal to the current customers.

Examples of other potential weaknesses are MQ's limited control of and ability to influence the external brands. MQ has greater control of proprietary brands, but since certain steps in the value chain are outsourced, the company is not in full control. However, MQ has made a strategic decision to decrease the number of suppliers, which increases the control. Another factor that can be considered a weakness is MQ's size, which potentially puts the company in a position where it is not large enough to be able to put significant pressure on for example suppliers and other partners, while it is not small enough to being able to quickly change its direction. Further, MQ's financial structure and the fact that it is a publicly traded company might affect the company's ability to pursue initiatives that are not initially contributing to financial gains.

There are many opportunities identified due to a promising external climate. The disposable income has been increasing among the Swedish population over the last several years. The vast majority of the Swedish population has Internet access, enabling a greater geographical reach for MQ through their web shop. Furthermore, the population is becoming increasingly aware of sustainability issues, which creates opportunities for companies to become early movers into the circular economy.

Some of the threats characterizing the external environment are the slow growth of the industry combined with fierce competition characterizing it. Furthermore it has been observed that people tend to cut expenses on clothing relatively fast when their economic situation worsens.

The key takeaways from the analysis of MQ's position are presented in Figure 30 below.

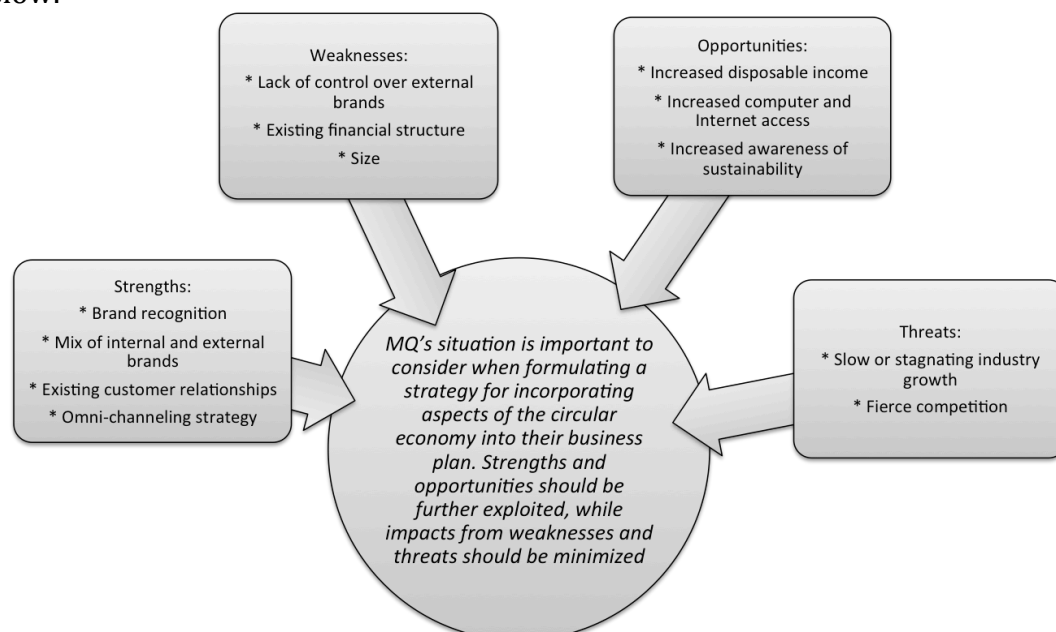


Figure 30 Key-takeaways from the situation analysis

The current situation can guide the analysis regarding what kind of opportunities that are more promising and suitable for MQ. But to assess when investments should be made regarding these opportunities the trend of the circular economy and factors affecting its diffusion need to be analyzed. This analysis is presented in the following section.

6.2 Analysis of the Trend of the Circular Economy

In this section, the media coverage of the circular economy, as well as factors affecting future trends of the circular economy is analyzed.

6.2.1 Analysis of Media Coverage of the Circular Economy

As mentioned in Chapter 2.5 Gartner Hype Cycle, the Gartner Hype Cycle can be used as a tool for analyzing the right time for companies to invest in an innovation, technology, or trend, such as the circular economy. Capgemini's placement of the circular economy in the *Slope of Enlightenment* phase indicates that the applications of the circular economy should be well understood in the business world as well as in academia. In this section, the current trends of the circular economy, mainly focusing on applications in the textile industry, will be analyzed further. Since the Hype Cycle is a structured research tool based on qualitative observations rather than pure quantitative analysis, this analysis will touch upon both quantitative and more qualitative aspects of the circular economy's position in the Hype Cycle.

The notion of the circular economy gained attention in media around 2004, and Google search interest took off a year later. Based on these observations, the *Innovation Trigger* phase of the Hype Cycle could have occurred between 2004 and 2006. Since the gap between the *Innovation Trigger* phase and *The Peak of Inflated Expectations* phase typically is rather short, it could also be assumed that *The Peak of Inflated Expectations* has already occurred. While no distinct peak occurs in the media coverage, search interest started to increase more steadily after 2010, likely partly due to the launch of the Ellen MacArthur Foundation. It is possible that, although no peak occurs in media coverage, the sentiment of media could be changing from positive to negative. This change could indicate a transition to the *Trough of Disillusionment* phase, shortly after the *Peak of Inflated Expectations*.

In recent years, the increased search interest for "Circular Economy" on Google indicates a growing societal interest. Additionally, the fact that both McKinsey and Accenture have released publications regarding adaptation to the circular economy further supports the suggestion of circular economy currently being in the *Slope of Enlightenment* phase. Thus, Capgemini's placement of the circular economy in this phase is assumed to be legitimate.

However, since the placement in the Hype Cycle can vary geographically as well as between different industries, further analysis is required to ascertain whether Capgemini's placement in the Hype Cycle is relevant in this context or not. Comparing the media attention of the circular economy in the textile industry with the media attention of the circular economy overall, the increase of articles during the last year is smaller for the circular economy within the textile

industry, 118 % compared to 192 %. Further, comparing this with the 397 % increase of articles during the last year regarding the circular economy in the packaging industry, a significant difference is observed. Thus, the trend within the textile industry seems to lag behind the trend of the circular economy in general. If the circular economy overall is in the *Slope of Enlightenment* phase, this lag would imply that the circular economy within the textile industry is in a previous stage. Alternatively, it could also imply that the circular economy in the textile industry similarly to the general term has entered the *Slope of Enlightenment* phase, but on a *Lowland Plateau*.

Since the concept of circular economy has been frequently used in the context of the clothing industry over the last five years the *Innovation Trigger* phase has likely passed. Further, the media attention has increased over time, why it could be argued that the circular economy within the clothing industry is still in the *Peak of Inflated expectations*. However, the content of the media might have changed due to the expectations of the trend. Even though the content of the articles was not analyzed in this stage, many articles encountered during the research process have highlighted difficulties regarding the implementation and actual transformation towards a circular economy within the textile industry. This could imply that the trend already have passed the *Peak of Inflated expectations*.

Moreover, many companies in the textile industry have begun their transition into the circular economy, and even more are examining related possibilities. Therefore, the circular economy within the textile industry is more likely to be in the end of the *Trough of Disillusionment* phase, than in a *Lowland Plateau*, which would imply less interest in adopting the trend. Further supporting this is the fact that the *Trough of Disillusionment* phase is characterized by less belief in the technology or innovation but still cases of success exists, and some solutions have become more widely adopted and recognized but none has yet become mainstream. An estimation of where at the Hype Cycle circular economy within the textile industry is today is illustrated in Figure 31 below.

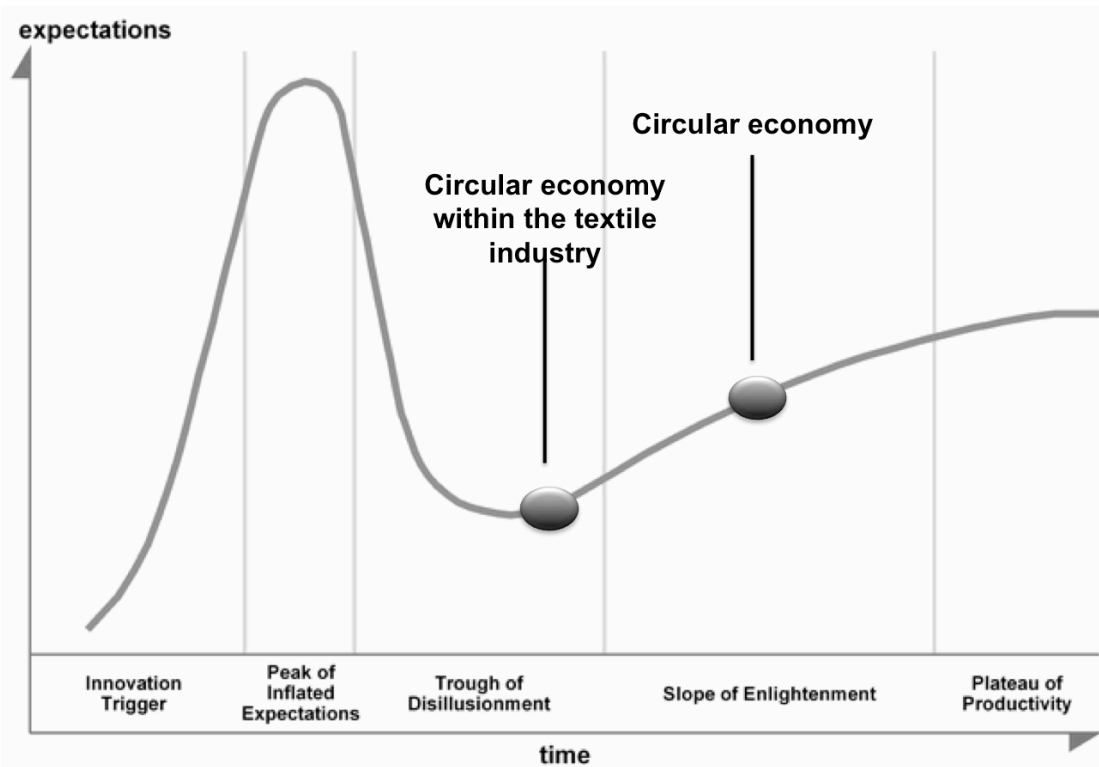


Figure 31 Hype Cycle. Assessment of the placement of the circular economy within the textile industry in Gartner Hype Cycle

Regarding when and if the circular economy in the textile industry enters the *Plateau of Productivity*, is dependent on the development of new technologies, laws and other external factors, as highlighted below. It is also unclear whether the circular economy within the textile industry will eventually enter a stage of fad or highland. The trend might become a fad, if it is replaced by another concept with similar goals.

Further, if the concept of circular economy in the future is replaced by another hyped concept, it would not completely reduce the value of investing in the circular economy. This as the underlying trend of sustainability is most likely to increase in importance. Therefore, initiatives regarding the circular economy are likely to maintain their relevance, even if the concept is replaced by a new concept with a similar goal. However, the initiatives will likely need to be promoted in a different way, to mirror the trend.

Moreover, media coverage of the circular economy in the packaging industry shows a more similar pattern to the circular economy in general than that of the textile industry. Since packaging is an industry in which recycling and the circular economy is prominent and not all technologies and innovations move through the Hype Cycle at the same pace, this is rather expected.

6.2.2 Factors Affecting Future Trends of the Circular Economy

As mentioned earlier, technological advancement is important in order for the circular economy to become more widely applied in the textile industry. Currently, there are various obstacles that prevent for example recycling of textiles on fiber level, making it difficult to have a fully circular approach with tight loops. But, as research regarding new materials and technologies are conducted, there is a possibility that future technological advancement will support a shift to the circular economy in the textile industry as well.

Moreover, initiative on EU, Nordic, and Swedish levels indicate that regulations regarding textile waste might be implemented in the near future. This could potentially lead to a greater need for, and possibly funding for, new technologies and greater focus on adapting to the circular economy from various actors. Thus, regulations can possibly speed up the process, and lead to a faster journey through the Hype Cycle for the circular economy in the textile industry.

The search interest of recycling clothes is also increasing. This could imply that the values-action gap that exists regarding knowledge of how ones actions affect the environment, but still do not change ones actions accordingly, might be about to decrease, further enabling a shift to the circular economy.

Hence, it is likely that the circular economy within this industry will be beneficial for the adopters, but it might not reach its full potential until later than the two to five years that Capgemini predicts for the circular economy overall. However, it is important to note that there is a risk that the circular economy in the textile industry not necessarily will reach a successful state of maturity. In order for it to be successful, changes in customer behavior are needed along with the above-mentioned new technologies and materials. Thus, it is difficult to predict the development of the circular economy in this particular industry.

Further, it should be noted that this is an approximate estimation of the circular economy's position in the Hype Cycle. There are many factors that lead to a high degree of uncertainty. However, strategies for both short term and long term are needed in order to not fall behind competition. This is further motivated by the fact that elements of the circular economy are more widely used in some other industries, and that possible future regulations might increase the need for incorporating these ideas into MQ's business plan.

However, the placement of the trend does not by itself assess the right timing of investment, MQ's willingness and ability to take risks as well as the importance and value of the opportunities need to be analyzed. MQ's willingness and ability to take risks might be rather low, due to the recent cost savings initiative and that they are publicly traded, which implies a vast focus on quarterly reports. However, due to the importance and value that circular opportunities might induce, an investment rather soon is recommended. By taking actions relatively soon, the risk of missing out on opportunities and falling behind competition is decreased. Some actors have already pioneered in transitioning into the circular economy, which provides an opportunity for MQ to learn and get influenced by their initiatives.

The key takeaways from the analysis of the trends of the circular economy are presented in Figure 32 below.

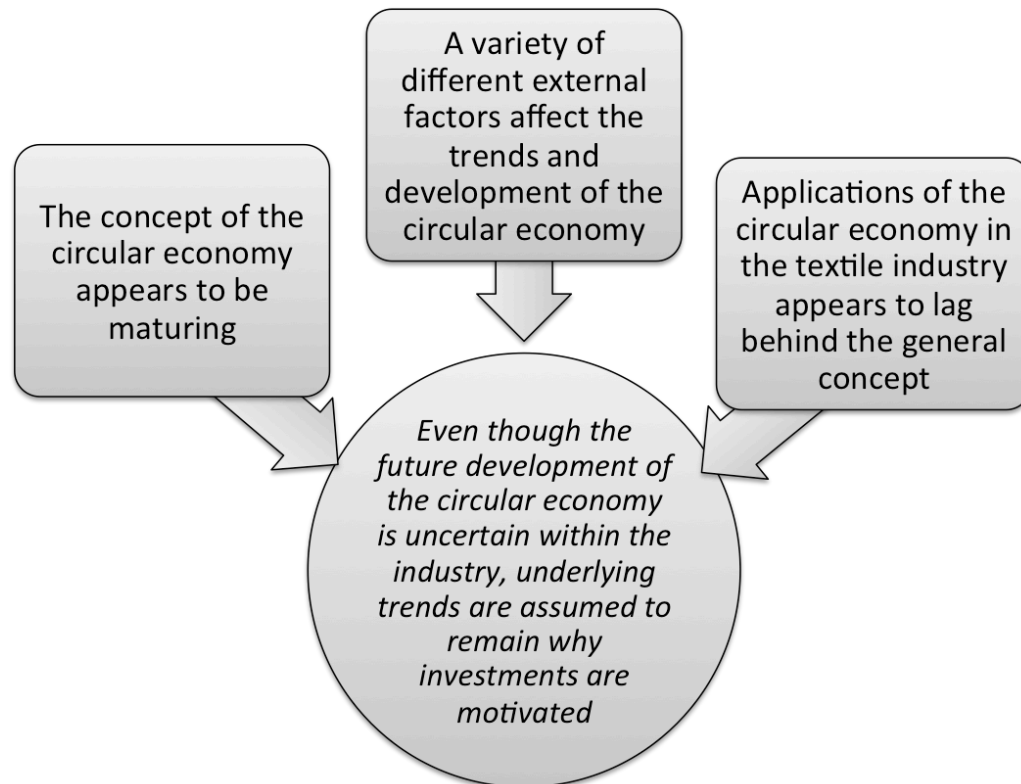


Figure 32 Key-takeaways from the analysis of trends

Based on this analysis, it is of interest to see how other actors react to this trend. Thus, actions in line with the circular economy performed by other actors are further analyzed in the next section.

6.3 Other Actors' Circular Economy Efforts

In this section, initiatives of the examined companies is analyzed and ordered according to Accenture's different business models for the circular economy: Circular Supplies, Resource Recovery, Product Life Extension, Sharing Platforms and Product as a Service. However, several of the efforts could potentially be placed under more than one business model, and be better explained as a mix of two or more business models. Additionally, not all efforts completely fulfill the definitions made by Accenture, the division should mainly be considered as providing a structured overview of the various efforts.

The sustainability efforts related to the circular economy by the examined companies within and outside the clothing industry are analyzed. The analyzed companies within the clothing industry are H&M, Lindex, Gina Tricot, Kappahl, Filippa K, Houdini Sportswear, Klättermusen, Gudrun Sjödén, Polarn O. Pyret, and Nudie Jeans. The analyzed companies from other industries are Renault, IKEA, Vodafone, Tetra Pak, and Philips.

6.3.1 Circular Supplies

By Accenture's definition, Circular Supplies relates to companies providing renewable and sustainable inputs, while in this context it is mainly referred to as using sustainable and renewable inputs.

Several of the examined companies in the clothing industry are striving towards using more sustainable materials. Through using renewable, recyclable, or biodegradable materials the companies move one step closer to a circular resource use. Three examples of companies that are focusing on using more sustainable inputs are Filippa K, through for example their Front Runners collection, H&M through their closed-loop products, and Houdini through their use of sustainable materials and aim to create recyclable items. Through tightening the loop and using purer inputs, these efforts help reduce waste.

Likewise, some of the examined companies in other industries are using sustainable materials and are aiming towards using it to a larger extent in the future. As an example IKEA uses Better Cotton and Renault incorporate recycled materials in their vehicles.

6.3.2 Resource Recovery

Some of the examined companies in the textile industry express that they design, or aim to design, products that can be recycled or reused. Thereby, at least parts of the value inputs can be recovered at the end of life for the items. Some examples are Houdini and Klättermusen, who both aim to create items that are recyclable. Additionally, Gina Tricot aims to design clothes that can easily be taken care of at the end of life.

Further, Nudie Jeans is collecting used jeans that are either resold, or the fabric is reused for other purposes. However, this could be regarded as down cycling, which some does not consider true recycling. Nevertheless, McKinsey has pointed out cascading as a way to reuse textiles and use the resources in various stages before they reach end of life.

Many of the examined companies in other industries have processes for recycling of their products, but it is seldom managed internally. Instead, the recycling process is outsourced to an external part. Renault for example has a partner that upcycles copper, and a joint subsidiary INDRA, which dismantles end of life vehicles and recycles some of the materials. Moreover, Vodafone has a partner that recycles the components of the phones that they collect through their Vodafone Buyback service. Tetra Pak do not recycle its products, neither themselves, nor through partnership. However, they enable recycling through developing a collection and recycling infrastructure and other incentives.

6.3.3 Product Life Extension

Several of the examined companies in the clothing industry, such as Lindex, Kappahl, and Polarn O. Pyret, are providing customers with instructions regarding how to care for their garments in order to prolong the lifetime. Further, Nudie Jeans' repair shops and repair instructions are other ways to prolong the garments' lifetime. Through repairing the garments, the value can be maintained. Similarly, Polarn O. Pyret is stocking spare parts, to enable repairing of the parts that break easily. Other means which some of the examined companies use to prolong the lifetime of their products is to produce high quality garments with a timeless design, made to be used during a longer time.

Regarding the examined companies in other industries, they are extending their products' lives in mainly two different ways. First, some of the companies repair, refurbish and sometimes reuse collected products. Examples of this are Renault's Choisy-le-Roi plant, and Vodafone's service Buyback that enables the company to gather old phones in order to refurbish and resell them if their quality is good enough. Additionally, some of the examined companies spend a lot of effort on educating the customers about recycling and environmental impact. Tetra Pak do this through different channels as school competitions, social media and awareness campaigns, while Vodafone do this by scoring their phones and adding the scores clear and visible for customers.

6.3.4 Sharing Platforms

The closest to sharing platforms that the examined companies in the textile industry come are probably Polarn O. Pyret's and Gudrun Sjödén's platforms for reselling of their garments. By facilitating reselling, these companies are enabling customers to share and transfer resources that they no longer use. Thus, the customers can receive value in terms of money in exchange for their idle resources in terms of clothes and accessories.

Among the examined companies in other industries, IKEA is the only one who facilitates reselling for their customers. This is done via collaboration with Blocket.se.

6.3.5 Product as a Service

Through allowing customers to lease parts of their collections, Filippa K and Houdini are utilizing a product as a service business model. They are providing their customers access instead of ownership to products that the customers use more rarely. This business model also tends to provide incentives to the company to produce high-quality products with longer life times, since the company keeps the ownership of the products and therefore is motivated to be able to lease them for a long period of time. Both Filippa K and Houdini are producing high-quality garments with a timeless design, thus this business model has the potential to be beneficial for them.

A product as a service business model is also a way for the companies to ensure that they get the products back at the end of life, which enables them to recover resources. Therefore, Klättermusen's deposit system is worth mentioning. Even though the customers are buying the products, they are paying a deposit, which motivates them to return the garment at the end of life.

Two of the investigated companies in other industries have started to offer what they before sold as products as services instead. Renault is leasing batteries to electric vehicles to their customers and Philips does this through their Pay-per-Lux project. Philips project helped them to think outside the box and thereby stimulate new ideas simultaneously as the service saves money and energy usage for their customers.

6.3.6 MQ's Position Related to the Examined Companies

MQ has a vastly different focus than some of the examined companies within the clothing industry, in terms of for example product mix, geographical presence, and target demographic. Moreover, considering the actors outside the industry, they sell products and services that show few similarities to MQ's, they are active on different markets and are significantly larger enterprises.

Further, it is important to keep MQ's focus on offering their customers a mixture of proprietary and external brands in mind. Besides efforts regarding the proprietary brands, it is essential for MQ to be aware of the actions of their external brands in order to maintain and create a coherent brand image. If not carefully considered, the mixture of proprietary and external brands could potentially lead to difficulties in maintaining and creating a coherent brand image.

The key takeaways from the analysis of other actors' efforts are presented in Figure 33 below.

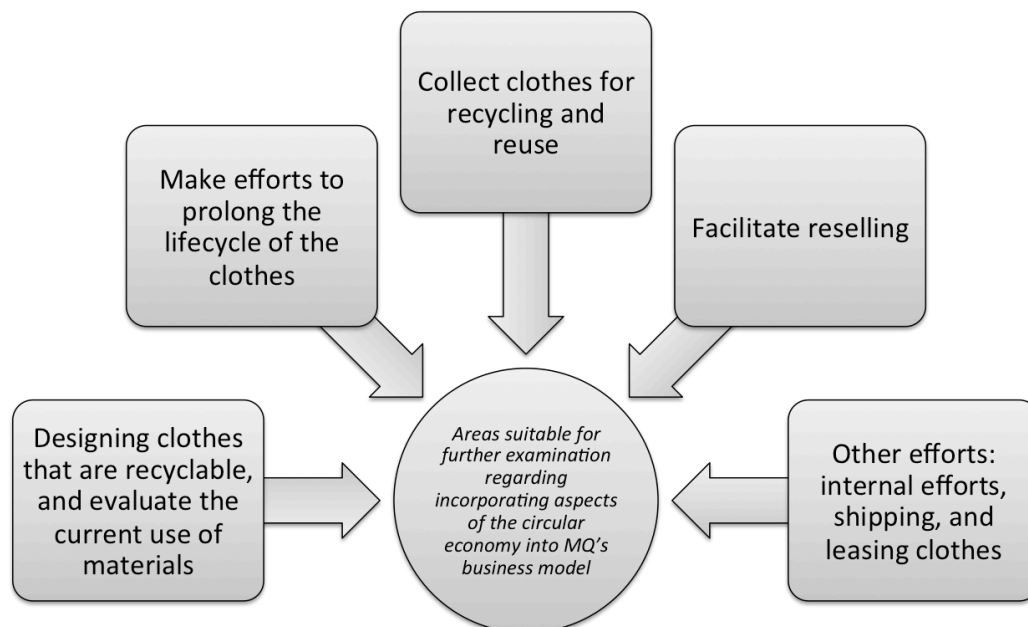


Figure 33 Key-takeaways from the analysis of other actors

In the next section, these areas are further analyzed and described, based on customers' as well as MQ's views and preferences.

6.4 Customers' and MQ's Views Regarding Different Opportunities

To name a few examples, pursuing opportunities within these identified areas could potentially help MQ prepare for future regulations, adapt to changing customer preferences, and potentially lead to cost reductions. Therefore, initiatives related to the circular economy have potential to help MQ gain and sustain competitive advantage.

This section starts with an analysis of the findings from interview round one regarding customers' shopping behavior. This is followed by an analysis of interviews with customers, the results from the online survey, and interviews with employees at MQ regarding issues related to opportunities within the following areas: the design phase, prolonging the lifecycle, garment collection, facilitating reselling, and other efforts.

6.4.1 Customers' Shopping Behavior

During interview round one, the female interviewees state that they tend to shop more casually and often for fun, while the male interviewees generally had a more specific purpose for their visit to the store. Additionally, the female interviewees went shopping significantly more often than the male interviewees. This is expected since women's clothing account for a greater portion of the total clothing market than men's clothing.

Even though online shopping is increasing in general, few of the interviewees state that they use online channels for purchases to a great extent. However, it is likely that the customers who strongly prefer shopping online over in stores were not encountered during the interview session, as they might spend less time in stores. As a majority of the female interviewees state that they view shopping as a social activity or something they do for fun, there is also reason to believe that shopping in store might satisfy more emotional needs, which might not be fulfilled through online shopping.

However, several of the interviewees claim that they use online resources to research for making their shopping in stores more efficient. This is also further supported by information from MQ indicating that only a small fraction of the web shop visitors actually perform a purchase through the web shop. This implies that the interviewees might find it easier to filter and find what they look for online compared to in stores. Further, when asked about what they would change in the shopping experience, some interviewees expressed a wish for an easier filtering of clothes in stores.

In general, the interviewees' expectations and impression of the shopping experience at MQ, and the items MQ provides, seems to be in line with the company's own focus and impression. Therefore it is essential that new strategies follow this path as well as providing a coherent brand image to the customer. The interviewees perceive MQ as a retailer providing high quality clothes with a great design and fit, which are factors they base their purchase decision on. Therefore, these factors should not be compromised, since it could change the brand image and possibly lead to a loss of satisfaction among existing customers. Even though it has been stated in this thesis that it is important not to

let current customers' values and beliefs hamper new strategies, these decision factors are believed to be core factors, which is likely to remain important even in the future.

6.4.2 Efforts in the Design Phase

As mentioned earlier, it is important to consider aspects of the circular economy during the design phase in order to achieve circular benefits. Since customers' preferences are changing, this is an area worth focusing on in the future, for gaining and sustaining competitive advantage. Further, regulations regarding for example textile waste are likely to be implemented in the near future, why keeping this area in mind could also enable MQ to easier reactively respond once these are in place.

Similarly to the majority of the examined companies within the clothing industry, one of MQ's long-term goals is to increase the use of sustainable materials in their production, and they has increased their use of materials such as organic cotton, lyocell and recycled polyester. The company has also focused on reducing the number of suppliers in order to develop closer relationships, which is a prerequisite for enabling this change.

However, some of MQ's obstacles for using new and more sustainable materials are availability and cost. Many of the newer, sustainable materials are not yet widely used and produced in large quantities. Thus, methods for producing these materials in larger quantities and at lower costs are needed before incorporating these materials on a larger scale becomes a viable option. Additionally, MQ uses fabrics made out of mixed fibers in some of its garments. Since using mixed fibers along with not designing items for recycling are two known obstacles for recycling of clothes, this is something worth focusing more on in the future.

According to the interviewees during interview round two, the material of a garment appears to be highly valued. Thus, new materials should not compromise the clothes look and feel. Additionally, as some interviewees state that they consider the information on the care labels before making a purchase decision and actively chose, or avoid, certain materials, more information regarding new materials might be needed when these are implemented. However, the look and feel is often more important than the information regarding material on the care labels, which leads to the conclusion that most customers might be receptive to new materials as long as they possess desired properties.

Regarding other factors influencing purchase decisions, characteristics such as fit, design and quality were mentioned in the first interview round. However, price was rarely brought up. One main reason for this could be that price is not regarded as a characteristic of the product but rather as a consequence of the characteristics of the product and the brand. But this could also indicate that the interviewed customers were not that price sensitive. Considering MQ's focus, the most price-sensitive customers might chose to shop elsewhere.

However, compared to the first interview round, many of the interviewees during interview round two brought up price as a major decision factor. The timing of the two interviews might provide clues for explaining this difference; the first interview round took place in February, which traditionally is a slow month for in retail, while the second round took place on a sunny spring day, the weekend after salaries were paid. Thus, it is possible the different circumstances led to that a different selection of customers, with diverse preferences were in the store on the two occasions. Additionally, the price to quality ratio is something that is considered hard for customers to assess.

Moreover, many of the respondents to the online survey value price highly. But, this is also a factor that they believe is likely to become less important for them in the future. Since the respondents to the online survey are younger than MQ's actual target group, this might also imply that price could be a less important factor for slightly older customers, who fall under MQ's target group. Additionally, many of the respondents stated that price is a factor that they are likely to value less in the future.

Further, regarding purchasing criteria, not many of the respondents of the survey or the interviewed customers tend to value sustainability as one of the most important purchase criteria today. There are also only a limited amount of searches on MQ's webpage regarding these areas, indicating that sustainable clothes is not what customers look for at the web shop today.

However, several of the interviewees during interview round two spontaneously brought up sustainability as a decision factor that is likely to become more important for them in the future, as more information becomes available. This is in line with the trend that transparency in the supply chain is increasing in importance to customers, as well as the observed increased focus and demand for environmentally friendly alternatives in Sweden and other areas. This could potentially lead to an increased interest in the materials used, how materials are sourced, and how the garments are treated at the end of life. This conclusion is further supported by the fact that the majority of the respondents of the online survey state that sustainability is likely to become a more important decision factor for them in the future.

Identified Opportunities

Based on the analysis, two opportunities regarding solutions related to design has been identified. These are presented in Table 4 below and further described in this section.

Table 4 Identified opportunities regarding efforts in the design phase

What	Increase Usage of Sustainable Materials	Design for Recyclability
Who	MQ - Suppliers	MQ - Suppliers
When	<ul style="list-style-type: none"> • Longer term • Continuously 	<ul style="list-style-type: none"> • Longer term • Continuously
How	<ul style="list-style-type: none"> • Actively consider in the design phase • Monitor development of new materials • Request and demand suppliers to focus on this issue 	<ul style="list-style-type: none"> • Actively consider in the design phase • Request and demand suppliers to focus on this issue
Why	<ul style="list-style-type: none"> • Possible future regulations • Changing customer preferences 	<ul style="list-style-type: none"> • Possible future regulations • Changing customer preferences

The identified opportunities consider actions during the design phase. These actions are only suitable for the proprietary brands, due to the internal responsibility of the design phase.

As one of the core principles of the circular economy concerns designing out waste, this implies that circular effects can be achieved through designing for reuse, recycling, and disassembly at the end of life. Thus, continuous evaluation of materials choice and efforts towards designing for recyclability are potential opportunities for MQ to adapt to the circular economy. These efforts are further motivated by possible future regulations and changing customer preferences. Currently, several new materials suitable for the circular economy are under development. Thus, MQ should continuously monitor the development and research the possibilities for incorporating more of these kinds of materials when they meet the requirements regarding price and availability along with a desired look and feel.

Regarding design for recyclability, this concerns both choosing recyclable materials, and designing to enable easy disassembly, for example through enabling easy to remove zippers and buttons and avoid fabrics made of mixed materials.

Involvements from the manufacturers and suppliers are crucial to enable an increased use of sustainable materials and designing for recyclability. To succeed, MQ needs to request and demand these actors to for example bring in new materials and make them available in the production of MQ's clothes. This might not be an easy task, especially considering MQ's size.

Further, since factors regarding this area not currently seem to be of great value for customers, a longer time perspective regarding the solutions is recommended. Changing materials can be a costly and difficult process and there is currently a great uncertainty regarding which kinds of materials that potentially become new industry standards, since plenty of new technologies and materials still are in development stages. A long-term approach could therefore reduce the risks of investing in the wrong technology or material. However continuous evaluation of the development of new materials and technologies is essential in order to not lag behind competitors when a change is

needed due to regulations or changed customer preferences. Additionally, approaching and request more sustainable alternatives from suppliers and manufacturers that MQ has a closer relationship with, and of which MQ is a more influential partner is recommended.

6.4.3 Efforts Regarding Prolonging the Lifecycle

By prolonging the lifecycle of the clothes, these can be used for a longer time and thus the environmental impact can be reduced. Apart from environmental gains, efforts in this area could also prevent MQ from being associated with the fast-fashion trend, which is one of their strategic decisions. Further, efforts in this area is also consistent with the fact that some of the interviewees mentioned higher quality and better durability as things they would change regarding the process of caring for their clothes if they could. This is in line with MQ's goals, and something that therefore should be maintained and improved.

The majority of the interviewees during the second interview round state that they sometimes repair torn clothes. Moreover, factors that would influence them to repair more clothes, and thereby prolong the lifecycle of the garments, are availability and price of tailors and knowledge of how to repair the clothes themselves. Among the respondents to the online survey, lack of knowledge is a common reason not to repair clothes. Additionally, one of the previously defined economical obstacles for longer use and reuse of clothes is the cost to repair clothes.

During interview round one, some of the interviewees stated that clothes often went out of style before they were worn out. Since the clothing industry generally is fast moving, there is reason to believe that the customers' view is accurate.

Identified Opportunities

Based on the analysis, three opportunities regarding prolonging the lifecycle of the clothes has been identified. These are presented in Table 5 below and further described in this section.

Table 5 identified opportunities regarding prolonging the lifecycle of clothes

What	Design for a Longer Lifetime	Support Customers to Prolong the Lifetime of their Clothes	Personalized Offerings
Who	MQ - Suppliers	MQ - Customers MQ - Tailors - Customers	MQ - Customers
When	<ul style="list-style-type: none"> • Longer term • Continuously 	<ul style="list-style-type: none"> • Short-term • Continuously 	<ul style="list-style-type: none"> • Short-term • Continuously
How	<ul style="list-style-type: none"> • Actively consider in the design phase • Request and demand suppliers to focus on this issue 	<ul style="list-style-type: none"> • Provide customers with advice regarding how to care for their clothes • Provide instructions regarding how to repair common damage to clothes • Cooperation with tailors, Loyalty Club events 	<ul style="list-style-type: none"> • Make use of available data • Send personalized information and advertisements to customers
Why	<ul style="list-style-type: none"> • Decreasing the total environmental impact of a garment during its lifetime • Changing customer preferences 	<ul style="list-style-type: none"> • Decreasing the total environmental impact of a garment during its lifetime • Changing customer preferences 	<ul style="list-style-type: none"> • Consistent with trends in retail • Avoid being linked to fast fashion

Regarding design for a longer lifetime, this is a similar approach as discussed in the previous section, Chapter 6.4.2 Efforts in the Design Phase. However, here the goal is to increase the quality and the actual and fashion-related durability of the clothes. Similarly to the other solutions considering design, designing for a longer lifetime is an area to consider in a longer term, but continuously consider and evaluate opportunities within. As MQ is striving to provide high quality garments, which in many cases has a classic design, there are reasons to believe that such a strategy has potential to be successful.

Considering short-term solutions, MQ can provide their customers with more extensive care advice, and instructions regarding how to repair torn clothes. Starting with providing care advice, the clothes' total impact can thereby be reduced in two ways. First, a large portion of the environmental impact from a garment is accounted for during the use phase, as the owner wash and care for their clothes. Second, by caring for their garments in a better way, the lifetime can be increased. However, information must be given to the customers in an easy and convenient way.

Moving on to providing repair advice, this could be provided through for example videos on the webpage or through physical booklets. Moreover, MQ could possibly sell repair kits with everything needed to repair common damages, an initiative adopted by Nudie Jeans. There is also an opportunity for evaluating the possibility of leveraging the current collaboration with local tailors to involve repairing broken garments. By for example hiring a tailor for a Loyalty Club event, where the tailor could give the customers tips regarding how to repair common damages or possibly make easy alterations themselves. In addition, letting the customers bring torn clothes and get them repaired during the event, could inspire more people to repair their clothes.

Moreover, an increased focus on providing clothes with a timeless design and efforts to motivate customers to keep using their clothes for a longer period of time might be in place. In order to influence customers to use their garments for a longer period of time there is an opportunity, which has been discussed internally at MQ, to provide customers with tips on how to complement for example last years shirt with a new necklace, and wear it for another season. There is an opportunity for using the data accumulated through the Loyalty Club to create personalized offerings like this to customers.

As an example, if the data shows that customer A bought a coat last fall, the message can be something in line with "You bought this coat last fall, it's still a great choice. Why not keep it for another season and complement with any of these scarfs/hats/gloves." By this, MQ can further brand itself as a quality and timeless alternative, while inspiring customers to use their garments for a longer time period. This is also consistent with the trend to make offerings and information more personalized. Moreover, as a personalized one-on-one sale usually not is profitable in retail situations, this further motivates incorporation of data analytics in the selling situation.

However, this type of personalized offerings might appeal to some customers, while others might be discouraged and feel uncomfortable by the fact that the company has this information. Therefore, such a solution could initially be implemented on an optional basis, where the customers are allowed to chose whether they want to receive this type of offerings or not. Further supporting personalized offerings is that personalized communication is a trend within the retail sector, which might lead to that this will be requested from customers on a larger scale in the future.

Further, to encourage customer to use clothes for a longer period of time might seem contradictory to MQ's goal of increasing sales. But, as MQ is aiming to provide high-quality clothes and this is consistent with the interviewees' expectations on the company, efforts in this area might help further enhance the brand image. Moreover, several of the interviewees, particularly the female ones, express that they more often buy clothes rather spontaneously, because they like them, than because of a pre-defined need. This, in combination with the fact that the customers have many options and low switching costs and thus not certainly would have bought the potential additional items at MQ, motivates that this type of efforts do not automatically imply a reduction in sales. Instead, it could potentially lead to increased sales and customer loyalty.

Moreover, since factors regarding this area to a great extent can be implemented without major investments and efforts a short-term perspective is recommended on most of them. By visibly support customers in prolonging the lifetime of the clothes, the perception of MQ as providing high-quality items can be further enhanced.

6.4.4 Efforts Regarding Garment Collection

In order to enable both reuse and recycling of clothes these need to be collected, wherefore this is an essential part for companies to consider while evaluating circular alternatives. It is possible that companies within the clothing industry will be responsible for what happens with their products at the end-of-life. Thus, considering this efforts in this area and evaluating different alternatives proactively might ease the transition when such regulations are in place. Moreover, efforts in this area are also visible to the customers, and could therefore help positioning MQ as a responsible retailer and potentially lead to competitive advantage.

Further, the majority of the interviewees claim that they donate used clothes to different organizations, if they are in good condition. However, since only a fraction of the total amount of consumed textiles in Sweden are donated for reuse and recycling, it can be questioned to what extent this statement is true. One possible explanation for this difference could be that the interviewees stated what they thought was the correct answer, or only recalled what was closest in their memory, which could somehow have biased the result. Nevertheless, this indicates that the interviewees at least know the location of collection centers. The result from the online survey further supports this, as many of the respondents state that they are aware of donation locations.

However, the majority of interviewees in both interview rounds claim that they discard torn or worn out clothes instead of donating them. That clothes that are torn or look worn cannot be recycled is a rather common misconception. Another knowledge gap that was discovered during the interviews is the interviewees' limited awareness of what happens with the clothes they donate to different organizations or in stores. According to some of the interviewees better knowledge of what happens with the donated clothes might increase the frequency of donations. However, some respondents express hesitancy regarding the true purpose of collection boxes, mostly related to matters that have been brought up previously such as the possible offset of environmental benefits due to increased consumption and the limited information regarding what happens with the clothes.

Further, in order to encourage customers to donate clothes, many of the examined companies give customers incentives to donate used clothes, for example in form of discount vouchers. One of the interviewees claim that this would motivate her to donate clothes, and from the company's point of view this might lead to increased sales as customers have greater incentives to buy clothes in that particular store. But simultaneously, this might lead to overconsumption of garments and thereby potentially offset the environmental benefits gained through collecting the clothes.

Many of MQ's competitors collect clothes in their stores but few of the interviewees were aware of this. For such a solution to be successful, people need to be aware of its existence. If MQ starts collecting used clothes in their stores, it is thus essential to develop a well thought through promotion plan. However, as MQ's strategy encourages long lifecycles and high quality of their clothes, there is a bit of internal hesitancy towards collection boxes in the stores as this might be associated with fast fashion and thus could negatively affect their brand image.

Identified Opportunities

Based on the analysis, two opportunities regarding garment collection have been identified. These are presented in Table 6 below and further described in this section.

Table 6 Identified opportunities regarding collecting clothes

What	Collect Clothes	Collaborate to Promote Improved Recycling Infrastructure
Who	MQ - Customers MQ - Organizations	MQ - Other actors
When	•Mid-term	•Longer term •Continuously
How	<ul style="list-style-type: none"> •Have collection boxes in stores •Have directed events •Give incentives to customer to donate clothes 	<ul style="list-style-type: none"> •Collaborate regarding collection infrastructure •Collaborate regarding spread of information
Why	<ul style="list-style-type: none"> •Possible future regulations •Visible solution towards customers - branding •Possible increase amount of donated clothes 	<ul style="list-style-type: none"> •Changing customer preferences •Economies of scale •Environmental benefits •Possible future regulations

Collection boxes in stores is an initiative that is visible to the customers and therefore has potential to increase awareness and expand social engagement. Most of the respondents of the online survey claimed that initiatives like collection boxes in stores affect their perception of the brand positively, which supports these types of initiatives. However, as most interviewees and respondents in the empirical studies claims that they are aware of locations to donate used clothes, collection boxes in stores is more likely to potentially lead to an increased frequency of donations, rather than an increased amount of clothes collected.

Although an increased amount of donations is desirable in order to benefit from scale advantages, an increased frequency of donations is beneficial as well. By not keeping garments that are not used in the closet for many years, the clothes can be reused when they are still rather modern. Thus, the total number of cycles of reuse during a garments lifetime could be increased. Further, increased frequency of donations might simultaneously lead to increased amounts of donations as it could reduce the amount of clothes being discarded in the garbage by regularly reminding people about donations.

If MQ decides to collect clothes they could leverage their current collaboration with Myrorna. This would then not require any significant investment from MQ's side besides costs in terms of labor due to handling of garments. To collaborate with a new partner such as I:CO requires additional planning and administrative efforts. Further, if such a solution were to be implemented, the recommendation is to accept clothes from brands beyond MQ's selection, as this increases the potential environmental benefits and make it easier for customers since they will not have to sort their clothes before donating.

A solution for increasing visibility and collection of clothes without encouraging fast fashion and devoting permanent retail space could be to have temporary events, matching periods when customers tend to clean out their wardrobes. Further, collection events could also be in relation to Loyalty Club events, where the participating customers could earn for example Loyalty Club credits.

As using discount vouchers to motivate customers to donate clothes might offset the environmental effect, other alternative incentives might be of interest. An opportunity could be to leverage the crowdfunding trend; by letting the customers choose an option among some startup companies or foundations that the MQ donates money to, instead of the customers receiving a discount voucher. Since most of the interviewees and previous studies implies that donations are often made out of social concerns rather than environmental, this might be a desired solution.

The usage of deposit systems is another possible solution for motivating customers to return used clothes. This solution is adopted by for example Klättermusen and could possibly be applied to MQ's proprietary brands. Deposits motivate customers to return clothes by monetary compensations without encouraging increased consumption. As clothes are kept by customers for around three years according to the interviewees and theory this might also imply income in form of interest rates for MQ.

Furthermore, MQ could collaborate with other actors such as competitors and charity organizations in order to change customer behavior and increase environmental benefits. It might seem contradictory or strange for some actors to collaborate with competitors but this could open up for many opportunities. MQ has limited ability to influence customers or suppliers by itself, due to their size and reach. However if actors within the industry collaborate, they have greater opportunities to achieve benefits through economies of scale, by for example developing a common collection infrastructure. These efforts could benefit the entire industry, and prepare for future milestones and regulations.

Even though MQ has expressed concerns regarding initiatives in this area, they are still important to consider. As these solutions are highly visible for the customers, and several of MQ's competitors have initiatives related to garment collection, not taking actions might lead to that MQ falls behind competition in this area, which potentially could hurt brand image. Thus, these types of initiative might not lead to competitive advantage, but in order to strengthen

their position as a retailer focusing on sustainability, MQ is recommended to take actions in this area in the short term. However, some initiatives require more planning and organization, and might thus first be applicable in long term.

6.4.5 Efforts Regarding Facilitating Reselling

As described earlier, it is currently more beneficial to reuse rather than recycle textiles with regards to possible environmental benefits. This is also in line with one of the principles of the circular economy, *waste is food*. In order to increase the cycles of reuse, companies could facilitate for customers to exchange and sell used clothes. For MQ, efforts regarding facilitating reselling can further augment the company's focus on providing high-quality clothes, as this shows that the clothes are durable enough to go through a second cycle of use. Further, just like regarding garment collection, this is a solution that is visible for customer and could therefore enhance the brand image.

However, only a few of the interviewees have bought second hand clothes. The main reason for this is because they prefer to buy new clothes, but also factors such as limited supply and habit. However, the second hand market in Sweden is increasing, and respondents to the online survey state that second hand stores are becoming more similar to retail stores and that they have the opportunity to find unique garments when shopping in second hand stores. This indicates that reselling of clothes could be a more lucrative opportunity in the near future. But, there are obstacles; the result from the online survey indicates that the perceived uncleanness of second hand clothes hampers many people from purchasing them. This is also further supported by other studies. Further, in Sweden and in many other areas, the price advantage for used clothes over new ones is either small or non-existent.

Moreover, most of the interviewees state that they would prefer purchasing second hand clothes in physical stores, since they want to be able to assess the fit and quality of the garments. However, as some of the interviewees state that they research online before making purchases in store, this implies that general in store filtering is not always sufficient. In second hand stores, more items are one-of-a-kind, which makes the search process even more difficult. It is also possible that there are few overlaps between MQ's and second hand stores' target customers.

Additionally, not many of the interviewees have sold used clothes, and the main reason for this is that the efforts are greater than the perceived benefits. The majority of clothes that MQ sells are not considered having a high enough value to offset the efforts of selling them. Therefore, in order to increase reselling of clothes, the effort of selling needs to be reduced or the perceived value of doing so needs to increase. There is also reason to believe that new, simplifying solutions might lead to an increase in reselling. Thus, in order to successfully be able to facilitate reselling, it is also important to consider the potential buyers and adapting the message and process to their needs by limiting the extent of these obstacles.

Identified Opportunities

Based on the analysis, two opportunities regarding facilitating reselling have been identified. These are presented in Table 7 below and further described in this section.

Table 7 Identified opportunities regarding facilitating reselling

What	Provide Marketplaces for Reselling	Facilitate Reselling Through Collaborations
Who	MQ - Customers	MQ - Partners
When	•Mid-term	•Mid- term •Continuously
How	•Online platform •Pop-up shops •“Green corner” in stores •Events	•Collaboration with other actors simplifying the transaction process for customers
Why	•Increase reuse of clothes •Simplifying for customers •Brand image	•Increase reuse of clothes •Simplifying for customers

In order to increase reselling of products and thereby also contribute to increased cycles of reuse, MQ could facilitate reselling of clothes by providing a marketplace. Among the examined companies within the clothing industry, a few currently provide platforms enabling reselling of used products. This kind of solution would require an initial investment for MQ equivalent to the cost of developing the platform and promote it. Running costs mainly considers maintenance. Besides these investments, MQ could chose not to engage actively in the platform but instead just enable and facilitate the connection between buyers and sellers.

Providing an online marketplace can lead to benefits in form of positive brand image and increased traffic on the webpage. Based on the interviews, the most prominent hurdle for customers regarding reselling of clothes and purchasing of used garments is the complexity of the transaction. Therefore, a well-developed user interface and an easy way to handle transaction processes are needed. This would also further simplify for customers to filter through the clothes for sale, reducing the perceived difficulty of finding the right clothes in the right size.

However, if the clothes bought through a platform operated by MQ do not meet expectations regarding for example quality, the brand image could be harmed. Moreover, as one of the main obstacles for customers to purchase second hand clothes is perceived uncleanness, an unsupervised platform might not be an optimal solution. MQ could instead use their strong brand in order to assure the garments cleanness and quality by engaging more in the platform and check quality and take photos of the garments for sale.

Another opportunity could be for MQ to provide physical marketplaces besides, or instead of, an online platform. One possible way to do this is to have “green corners” in selected stores, where used clothes could be resold. This solution would be visible to customers and could potentially strengthen the image of MQ

as an environmentally responsible retailer. Since MQ has a strong brand, there is a possibility to leverage this position for assurance of quality and cleanliness of used clothes resold in their stores. As the perception of uncleanness currently is an obstacle for reselling of clothes, this assurance might increase the likelihood of success.

But, as retail space is scarce and expensive a solution that does not compete with the other collections regarding space would be preferable. The current trend in the retail industry considering pop-up shops is therefore worth considering. A Pop-up shop would not take up retail space in the regular stores and might lead to both brand recognition and environmental benefits as MQ enables more clothes to be reused instead of thrown away. This might also imply one additional point of sale where new potential customers could recognize MQ. Additionally, events where clothes can be exchanged between customers, similar to - or in combination with - the possible opportunities mentioned in Chapter 6.4.4 Efforts Regarding Garment Collection, is a possible solution.

Alternatively, collaborating with other actors might be a solution for facilitating reselling. By using established and common solutions, the process for customers could be simplified. By collaborating with an established online platform, such as Blocket.se, which is widely used and understood by people within Sweden today, MQ could provide a solution similar to IKEA's and enable customers to upload advertisements on Blocket.se, which also is shown on MQ's webpage. This could decrease the complexity for customers due to standardized processes, and thereby increase the perceived value of reselling clothes. Simultaneously this could potentially decrease the cost of developing and maintaining the platform for MQ without reducing the environmental benefits or the extra web traffic that this might induce.

However, if MQ choose to pursue the opportunity of facilitating reselling, they need to decide whether to only enable reselling of clothes from brands that MQ sells, or for clothes overall. Contrary to what was concluded regarding collection of clothes, the recommendation is to only allow clothes from brand sold at MQ to be resold through this solution. One of the reasons for this conclusion is that a more specific reselling could increase the attractiveness as it would be easier for the customers to know what to expect, and easier for them to filter through the items for sale, compared to if the solution included a wider selection of brands. Including items from other brands could also make it more difficult to make the solution attractive to the customer segments that MQ targets.

By facilitating reselling the clothes' lifetimes can be prolonged. Thus, taking initiatives regarding this area could enhance customers' perceptions of MQ's brand image. Therefore a shorter time perspective on certain initiatives is desirable in order to improve the brand image, and potentially reach additional customers. However, some of the mentioned initiatives might instead harm MQ's brand image, if not thought through well enough before implementation. Thus, a longer time perspective is required regarding these initiatives.

6.4.6 Other Efforts

Regarding other efforts, MQ's internal efforts to reduce environmental impact, as well as efforts considering shipping and the possibility of leasing clothes will here be further discussed. These are important areas to consider for letting the circular initiatives influence the internal operations as well, and not only the areas visible to customers. Further, apart from environmental gains, efforts in this area could also lead to cost benefits.

MQ has made efforts to reduce internal impact. However, in order to being able to fully benefit from these efforts, follow-up activities are crucial. Moreover, due to new EU-directives the company will soon be obligated to report their energy usage more extensively. Further, the required mapping of current energy mapping as well as the opportunities to compare with competitors opportunities for making current energy usage more efficient might be identified.

Since much of MQ's clothes are shipped from Asia, impact during shipping is also an important area. Considering leasing products, the examined companies who currently offer such solutions are generally offering more expensive products and a different focus than MQ. However, customers are to an increasing extent valuing access higher than ownership. Therefore it is relevant to look into opportunities where products are transformed to services.

Identified opportunities

Based on the analysis, three opportunities regarding other efforts have been identified. These are presented in Table 8 below and further described in this section.

Table 8 Identified opportunities in other areas

What	Follow up on Previous Initiatives and Further Review Internal Impact	Efforts to Reduce Impact During Shipping	Lease Clothes
Who	MQ - Internally and in relation to partners	MQ - Suppliers and logistics partners	MQ
When	<ul style="list-style-type: none"> • Short-term • Continuously 	<ul style="list-style-type: none"> • Longer term • Continuously 	<ul style="list-style-type: none"> • Longer term
How	<ul style="list-style-type: none"> • Follow up on previous initiatives • Start new initiatives continuously 	<ul style="list-style-type: none"> • Continuous dialogue • Monitor and chose new, more sustainable options for shipping and packaging 	<ul style="list-style-type: none"> • Allow customers to lease parts of the collections
Why	<ul style="list-style-type: none"> • Reduce impact • Possible cost benefits • Being better able to benefit from initiatives • Possible future regulations 	<ul style="list-style-type: none"> • Reduce impact • Possible cost benefits • Possible future regulations 	<ul style="list-style-type: none"> • Changing customer preferences • Reduce impact • Possible revenue increase and cost decrease related to each garment

Considering efforts related to internal operations, these are mainly aiming to reduce the environmental impact, but might also lead to cost benefits for MQ. MQ has previously undergone an environmental certification. However, in order to be able to fully benefit from such initiatives, follow up is important. Thus, MQ is

recommended to set clear goals regarding the follow-up on previous initiatives. This should also be complemented with continuously examining and starting new initiatives, for which it is important to set clear goals and follow up. As one of the core principles of the circular economy is to rely on renewable energy, this is an example of an area that MQ could look further into, along with minimizing waste in the office and stores. Some other examples are decreasing the use of electricity and office supplies. This is something that MQ might consider in short term, as it does not necessarily require a big initial investment and might even lead to cost reductions. Moreover, as new regulations will be implemented shortly, efforts in this area are further motivated.

MQ has reduced the amount of airfreight. However, shipping is an area that is worth monitoring and to further investigate with regards to more sustainable alternatives. More efficient shipping and packaging might lead to decreased environmental impact as well as cost savings. There is also a possibility for future regulations, which might lead to that efforts in reducing the impact during shipping might be necessary. Moreover, the trend towards increased transparency in the supply chain further motivates efforts in reducing impacts.

Some of the examined companies in both the clothing industry and in the other industries are leasing some of their products to their customers. By leasing clothes, MQ could keep ownership for a longer period of time, and the clothes could generate income over a longer period of time, while the resources are used more effectively. Even though MQ has a different focus than these actors, and their clothes generally do not require a significant initial investment from the customer, this is something that might be interesting in the future.

However, the solutions presented in this section have limited potential to be successful without the involvement from the customers. In the next section, the importance of involving and educating customers will be further discussed.

6.5 The Importance of Involving and Educating Customers

Even though the majority of the interviewees express an awareness regarding how consumption affects sustainability, few act on it to a great extent. For example, few state that sustainability is a major factor when making purchase decisions even though they are aware that it is an important issue. This values-action gap is further supported in previous studies covered in Chapter 2 Literature Review. Thus, these gaps are important for MQ to consider and strive to fill for being able to gain competitive advantage from incorporating aspects of the circular economy into their business model.

However, changing customers' behavior is difficult, and requires great efforts from the company. But, since customers are becoming increasingly aware of related issues, speeding up the process should not be deemed impossible. But, MQ is a small actor, and its ability to single handedly affect customer behavior to a great extent can be questioned. Thus, efforts in collaboration with other actors is recommended, since conjoint actions by multiple actors is more likely to be able to affect customer behavior to a greater extent. Further, if one company educates and engages customers it leads to externalities that are beneficial for

society at large, including competitors adopting principles of the circular economy. Thus, the motivation for the individual company to take initiatives might be decreased, which further increases the importance of collaboration. However, as situations like this not always solve themselves institutional interference might be needed.

By providing information through various channels, the involvement and awareness can be increased. Additionally, as increased transparency in the supply chain is a trend in retail, providing this information might be requested from customers in the near future. Some of the interviewees also state that they tend to reflect on sustainability issues and for example donating used clothes when they are reminded about it in different ways. However, the information must be handed to the customers in an easy and convenient way, as most interviewees and respondents state that they seldom research issues regarding sustainability.

There are many opportunities for providing easy-access information to customers. An example is linking information to devices, for example via QR-codes that the customer can scan and in a fairly easy manner get more information regarding the manufacturing, shipping and transportation, and materials of the garment. Additionally, by for example having informative signs explaining the new material and its characteristics, customers can become more aware and hopefully more receptive to new materials. Information can also be provided to customers through the webpage and retail associates. Moreover, as many of the interviewees, and over 50 % of the respondents of the online survey, stated that they look at the care label for information regarding how to wash clothes, or to find out the type of materials the garment is made of, it might be possible to evaluate whether it is possible to provide more information on these.

To further increase customer involvement, there is a possibility to leverage social media. For example, MQ could post photos on Instagram or post information on Facebook that customers can share. They could also ride the gamification trend in order to engage customers more actively with the company as well as encourage them to share their experiences to their surroundings through social media. An example could be to have online competitions with a recycling and reuse of clothes-theme, with discount vouchers as prize.

Some of MQ's competitors are also leveraging the increased use of the Internet and technological devices by offering a phone application. There is a possibility for MQ to develop a phone application, through which they can spread information and further engaging customers.

7 Conclusions

This section aims to present the conclusions following this study. First, conclusions regarding the first research purpose: to provide MQ with short- and long-term strategies regarding how to incorporate principles of the circular economy into their business model, are presented. Thereafter the conclusions regarding the second research purpose: to discuss how a process based on the principles of Lean Customer Development can be used when identifying and evaluating opportunities related to the circular economy, are presented.

When identifying and evaluating opportunities related to the circular economy, it is important to consider MQ's positioning, situation and external environment as starting points. However, as customers' preferences as well as the external environment is changing over time, it is important to not completely reject solutions that do not appeal to current customers or not are completely in line with MQ's current strategy.

Adopting principles of the circular economy requires substantial changes from the focal company, as well as actors in its surroundings. Additionally, according to the interviews conducted for this thesis as well as previous studies, customers do not tend to value these aspects highly when making purchase decisions. Considering these characteristics, this implies that the circular economy can be considered as a disruptive trend, which might hamper companies from investing in related initiatives. Thus, in order to not reject opportunities that have potential to be beneficial in the future, a part-wise decoupling of current customers' beliefs is motivated. Moreover, even though some of the identified opportunities are not viable options right now, it is still important to consider these options, but in a longer perspective.

Thereby, the timing of implementing initiatives within the identified opportunities is crucial. The assessment of trends indicates that in certain areas the prerequisites for a company in MQ's situation to successfully adapt to the circular economy are not yet fully in place. Among the identified opportunities, some initiatives are recommended to pursue in the near future, while others should be regarded in a longer time perspective, to reduce risks. However, potential investments should also be evaluated based on MQ's willingness to take risks, and the potential of the opportunity. The chance of the circular economy becoming a fad exists. But, sustainability overall is most likely to be of even increased importance in the future, motivating initiatives in this area.

Moreover, efforts related to the circular economy not only have the potential to decrease the company's carbon footprint and its waste of limited resources, but could also help gain and sustain competitive advantage. Some of the identified opportunities can help the company position itself as a responsible retailer and thus enhance the brand image. Further, other examples of potential benefits are preparation for future regulations as well as customer requests, and potential cost benefits. In Chapter 6.4 Customers' and MQ's Views Regarding Different Opportunities, several opportunities was identified and evaluated. These are briefly summarized in Table 9 below.

Table 9 Summary of the identified opportunities for MQ regarding the circular economy

What	Design	Prolonging the Lifecycle	Garment Collection	Facilitate Reselling	Other Efforts
Who	MQ in collaboration with other actors	MQ in collaboration with other actors	MQ in collaboration with other actors	MQ in collaboration with other actors	MQ in collaboration with other actors
When	<ul style="list-style-type: none"> •Continuously •Mainly long-term 	<ul style="list-style-type: none"> •Continuously •Both long and short-term 	<ul style="list-style-type: none"> •Continuously •Both long and short-term 	<ul style="list-style-type: none"> •Continuously •Both long and short-term 	<ul style="list-style-type: none"> •Continuously •Both long and short-term
How	<ul style="list-style-type: none"> •Increase use of sustainable materials •Design for recyclability 	<ul style="list-style-type: none"> •Design for a longer lifecycle •Support customers •Personalized offerings 	<ul style="list-style-type: none"> •Collect clothes •Collaborate with other actors 	<ul style="list-style-type: none"> •Facilitate reselling by providing marketplaces •Facilitate reselling in collaboration with other actors 	<ul style="list-style-type: none"> •Follow up on previous initiatives and further review internal impact •Reduce impact during shipping •Lease clothes
Why	<ul style="list-style-type: none"> •Possible future regulations •Changing customer preferences 	<ul style="list-style-type: none"> •Avoid being linked to fast fashion •Changing customer preferences •Decreasing the total environmental impact of a garment during its lifetime 	<ul style="list-style-type: none"> •Possible future regulations •Visible solution towards customers - branding 	<ul style="list-style-type: none"> •Increase reuse of clothes •Simplifying for customers •Brand image 	<ul style="list-style-type: none"> •Changing customer preferences •Reduce impact •Possible revenue increase and cost decrease related to each garment

The identified opportunities encompass possible actions within several areas, and are mainly aimed to serve as a starting point for further examination. For testing different opportunities, there is an opportunity to implement certain solutions on a small scale through Loyalty Club events. Thus, solutions can be tested in an isolated environment, which imposes fewer risks and requires less investment than a countrywide rollout.

Moreover, adopting principles of the circular economy is often a big adjustment that requires changes in the company's business model and overall strategies. In Figure 34 below, examples of how the identified opportunities lead to changes in the different areas of MQ's business model are illustrated.

Key Partners <i>Evaluate partners suitable for new initiatives. For example, if initiative related to garment collection is pursued: Increase collaboration with the current partner Myrorna or evaluate other external actors, such as I:CO for partnerships. If the goal is to use more sustainable materials, initiate closer collaboration with current suppliers or evaluate partnerships with suppliers on the forefront.</i>	Key Activities <i>New initiatives require new activities. For example, if initiative related to leasing clothes is pursued, activities related to handling and administrating the transactions are needed. Likewise, if continuous evaluation of initiatives is pursued, this leads to activities focusing on this area.</i>	Value Proposition <i>The value proposition can be updated to include a stated focus on sustainability.</i>	Customer Relationships <i>To benefit from new initiatives, it is important to inform, engage, and involve customers. In order to inform customers, standardized communication can be used. However, in order to involve and engage customers, more personalized communication is likely beneficial.</i>	Customer Segments <i>Even though the main customer segments is believed to remain the same, there is a possibility of reaching additional customers. For example, if initiatives regarding reselling are pursued, this can attract a different group of customers.</i>
	Key Resources <i>New initiatives can lead to new key resources. For example, if initiative related to reselling is pursued and an online platform is developed, the platform could be considered a key resource.</i>		Channels <i>Due to the need of increased communication with customers, it is likely beneficial to expand the channels for communication. In addition to the current channels, options regarding for example QR-codes, phone applications and increased use of Social Media should be evaluated.</i>	
Cost Structure <i>Certain new initiatives can affect the cost structure. If for example initiatives related to reselling, leasing, or collection of clothes are implemented, costs regarding handling and administration will occur.</i>			Revenue Streams <i>Initiatives within some of the identified areas of opportunities have potential to create new revenue streams. For example, if initiatives regarding leasing clothes are implemented, this will lead to a new revenue stream. Likewise, reselling of clothes can lead to a new revenue stream.</i>	

Figure 34 Examples of how MQ the identified opportunities affect the different areas of MQ's business model

Since this is a complex situation, not only the focal company is affected when adopting circular principles. One of the core principals of the circular economy, *Think in Systems*, enhances the importance of viewing the circular economy from a greater perspective rather than focusing on isolated actors. Instead, it is crucial to consider the entire value chain. The various opportunities identified within the focus areas analyzed above are involving and influencing multiple actors along the value chain, as can be seen in Figure 35 below.

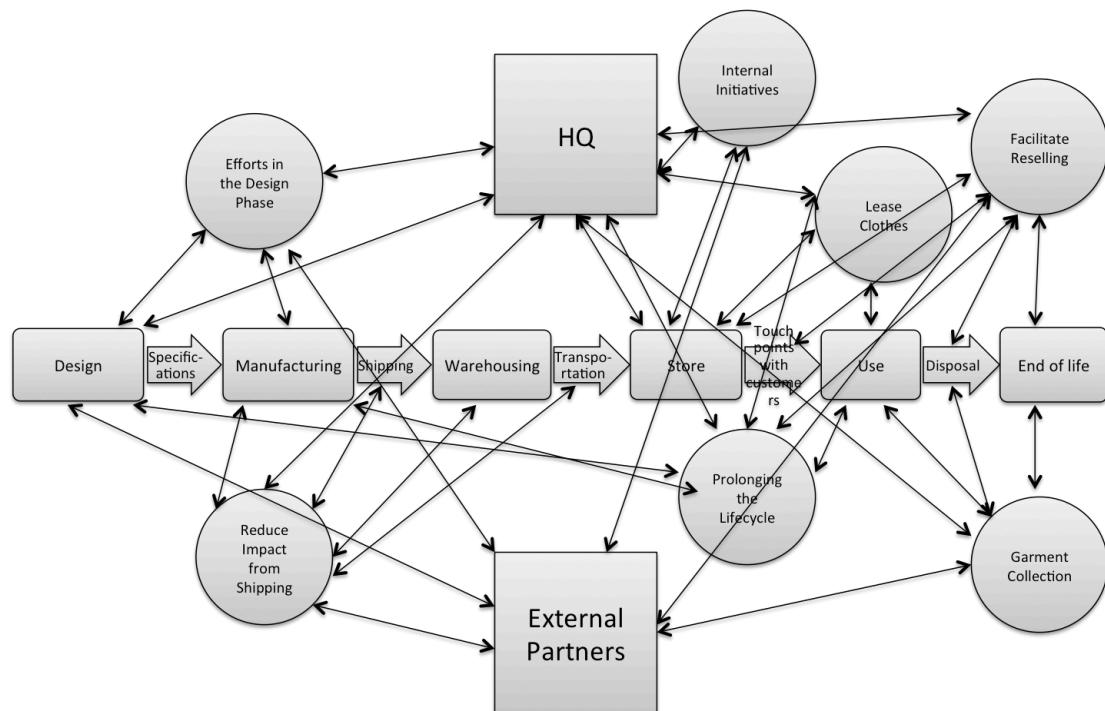


Figure 35 Illustration of the interplay between the actors in the value chain and the identified opportunities

As can be seen in the figure, the actors in the various stages of the value chain are intertwined. Moreover, the different proposed solutions should not be viewed in isolation. As an example, by educating customers regarding how to better care for their garments, the lifetime of the garments can be prolonged. This in turn enables more clothes to be resold and reused.

Further, the involvement and education of customers is critical and overlap the different identified areas. If customers do not see the value, or have an interest in the change, initiatives will likely not lead to a competitive advantage. Additionally, as customer preferences are changing, they might request and demand more information and actions from companies. Thus, informing customers is both a way to enable solutions to be successfully implemented, and a way to improve MQ's ability to benefit from implementing these solutions in the form of gaining competitive advantage.

The fact that people in general are well aware of sustainability issues, such as that consumption is affecting the environment in various ways, is further enabling the opportunity to benefit from sustainability initiatives. But, a substantial values-action gap exists and there is still a long way to go until the values-action gap will be overbridged for the mainstream customer, further increasing the importance of engage customers as opposed to just inform them. However, primary as well as secondary data gathered for this thesis implies that sustainability factors are likely to become higher valued by customers in the future.

This thesis provides a foundation for MQ's sustainability strategy development, by identifying and evaluating opportunities within the circular economy. MQ can use this foundation to state hypotheses for further research, continuing the Lean Customer Development process. These hypotheses can thereafter be tested by MQ in order to evaluate initiatives in different areas and formulate strategies regarding the circular economy.

Further, the process of developing this foundation, inspired by Alvarez' (2014) and Kromer's (2014) processes for Lean Customer Development, can be used as guidelines for other companies in similar situations pursuing research in this area, aiming to identify and evaluate circular opportunities.

Not only the process, but also the result can guide other companies regarding how to focus their generative market research around relevant areas, thus simplifying the overall process for future research in this area. In addition, based on the findings from the iterative research process, a number of areas have been identified as vital for companies to analyze when identifying and evaluating circular opportunities, displayed in Figure 36. By analyzing factors within these areas companies can find opportunities in line with the circular economy, suitable for their specific company and situation.

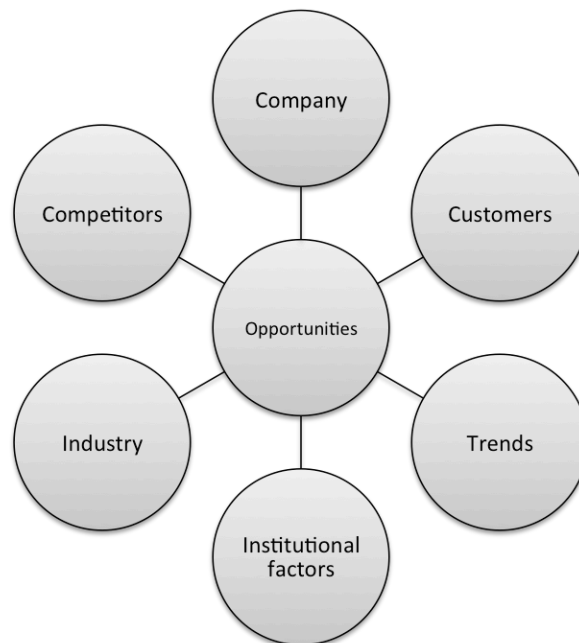


Figure 36 An illustration of factors that are important to consider when identifying and evaluating opportunities related to the circular economy

7.1 Implications for further research

Following the research underlying this thesis, a few areas have been identified as interesting for further research, both regarding MQ's process of incorporating principles of the circular economy into its business model, and regarding the implications for other companies in similar situations.

As this thesis provides a foundation for MQ's future strategies regarding how to approach initiatives related to the circular economy, the proposed next steps are characterized by further investigation and testing of the identified opportunities. More extensive customer interviews and observations, preferably in various locations and of a more representative sample than the one used in this thesis, are believed to be a beneficial next step prior to potential implementation. Observing and shadowing customers in stores can gain a better view of their actual behavior. Further, by formulating and testing hypothesis in controlled environments the opportunities can be further evaluated.

Even though the foundation developed for MQ is not directly applicable for other companies, the process used in this thesis can provide guidelines. In order to refine these guidelines more studies of similar character could be performed, focusing on different actors.

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Appendices

Appendix 1 - Short description of interesting actors.

This section provides an overview of actors that are only briefly described in the thesis.

Better Cotton Initiative

Better Cotton Initiative, BCI, is a non-profit organization that aims to develop the cotton industry in a more sustainable direction. They connect the various actors along the supply chain and sets standards for Better Cotton, which is intended to be a more sustainable alternative than traditional cotton. (BCI 2015)

Business Social Compliance Initiative

Business Social Compliance Initiative, BSCI, connects more than 1 500 retail, brand and importing companies to a common code of conduct. The goal is to increase the transparency and improve the working conditions along the supply chain. (BSCI 2015)

Cirqle

Cirqle collaborates with charity organizations and retailers to facilitate collection of clothes. The consumers can download an app on their phone, which gives them instructions regarding where they can donate their old clothes. In exchange, they receive a discount voucher. Filippa K, Lindex, Myrorna, Stockholm's Stadsmission and Röda Korset are currently connected to Cirqle. (Cirqle 2015)

Ellen MacArthur Foundation

Ellen MacArthur Foundation has created a global learning platform, aiming to spread knowledge about the circular economy worldwide (Ellen MacArthur foundation 2015a). Further, the foundation has numerous global business partners that support the foundation's circular economy innovation program – Circular Economy 100. This program constitutes a platform that unites various actors and aims to increase the speed of the transition to the circular economy (Ellen MacArthur Foundation 2015b). Moreover, the foundation also analyzes the circular economy's value and application to various businesses (Ellen MacArthur Foundation 2015a).

Human Bridge

Human bridge was founded in 2001, when the relief departments of the two Swedish organizations Läkarmissionen and Erikshjälpen where merged. The organization collects and ships relief to needing areas. (Human Bridge 2014)

In 2013, Human Bridge collected 1121 tons of textiles, through dedicated containers and at the associated second hand stores, called Lindra. The donated clothes are either sold in the second hand stores, or exported. The exported

clothes are either donated or sold. Profits are used for financing development projects. (Human Bridge 2014)

I:CO

I:CO provides the infrastructure for collection of clothes for their partners. Through collection boxes and counters in stores, I:CO collects used items that are sorted depending on condition. The donor gets a discount voucher as a reward for their donation. The items are thereafter, recycled, reworn, reused, or upcycled. With recycling, the company refers to recycling fibers, clothes suitable for rewear is sold on the second hand market. Through reuse, the textiles find new use as for example cleaning cloths. Finally, upcycling refers to transforming the resource into something of higher or equal value. (I:CO 2015)

INDRA

INDRA is a joint subsidiary of Renault and SUEZ Environment that dismantles vehicles at the end of life in order to utilize resources in form of spare parts and raw materials. Through INDRA, a good logistical solution is available since material supply can be centralized to dismantlers in France, and reusable parts are pooled for actors within the French sales network (McEvoy 2014). INDRA is offering a service including R&D during the initial stages, management, distribution, recycling and dismantling of end of life vehicles as well as spare part resale on a global scale. (Indra 2012)

Myrorna

Each year, Myrorna collects 8000 tons of textiles from private and commercial donators. In 2012, the company's turnover reached 232 MSEK, whereof clothes accounted for almost 100 MSEK. The company's profits are donated to Frälsningsarmén (The Salvation Army). (Myrorna 2014)

The donations are collected through designated containers, located close to for example malls, grocery stores, in residential areas, at workplaces collaborating with Myrorna, and at recycling centers. People can also donate items at Myrorna's stores. Additionally, Myrorna can pick up donations from private and commercial donators. (Myrorna 2014)

After the donation, the donated items are sorted at one of Myrorna's seven production facilities. About 20 % of the collected items are sold through their 35 stores, 73 % are exported, and the remaining 7 % are incinerated. Of the exported items, about 73 % are reused, 23 % recycled, and 4 % incinerated. The recycling is mainly down cycling, where textile products for example gets turned into insulation material or cloths for industrial use. (Myrorna 2014)

NÅÅ

NÅÅ was founded in order to provide a solution to increase reuse and recycling of clothes and is a collaboration among different firms, organizations, recycling companies, agencies and scientists amongst others that have a connection with the industry. The Network was created in 2011 and the firms involved are MQ, Gekås Ullared, Gina Tricot, Indiska, Intersport, KappAhl, and Lindex. (Ekström and Salomonson 2012)

Stadsmissionen

Stadsmissionen have local organizations in seven cities in Sweden. Parts of their business consists of collecting items to be sold in their second hand stores. The profits are used for their activities in supporting people in need. (Stadsmissionen 2015a) In Stockholm, Stadsmissionen has twelve stores. Donations are mainly made directly to the stores. (Stadsmissionen 2015b)

Of the collected items at Stockholm's Stadsmission, 40 % are resold, 5 % goes to social work, 1 % are recycled, 9 % incinerated and 45 % are exported. Out of the exported items, 83,3 % is reused, 13,9 % is recycled, and 2,8 % are incinerated. (Cirque 2014)

Teijin

Teijin is a chemistry company, which partly works with recycling. Regarding clothing, Teijin has developed a method to refine used polyester into new polyester of equal quality as new, petroleum-based polyester. The project is called ECO CIRCLE, and the aim is to develop a closed-loop system. The company currently has about 150 partner corporations in different geographical locations. (Teijin 2015)

T4RI

Textile for recycling initiative, T4RI, was founded by some of the members of Svensk Handel. The network is active in the discussion of questions regarding increasing reuse and recycling of textiles in Sweden. Today there are 11 companies in the collaboration that together corresponds to more than half of the clothes and home textiles market; Boomerang, Busfrö Nytt & Bytt, Ellos, Gina Tricot, Hemtex, H&M, Ikea, Indiska, Kappahl, Lindex, MQ, RNB and Åhléns. (Hedström 2014)

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Appendix 2 – Interview Wargön Innovation

The interview was performed over phone in an unstructured manner with Stig Fredriksson, Project Manager, Business and Organization, Wargön Innovation, the 16th of April 2015.

- Explain shortly about Wargön Innovation and your role in the company.
- How many projects are the company currently involved in?
- What motivates the investments Wargön Innovation has done in for example Re:newcell?
- Considering Re:newcell, can you please describe their technology?
 - What are the main benefits of their technology?
 - What obstacles can you see for such a solution?
 - What needs to be change for the technology to be more widely used?
- Considering recyclability of textiles at large, which actors are at the forefront, both in Sweden and globally? And what technologies have you came across?
- We heard that you met Naturvårdsverket in order to discuss guidelines regarding textile recycling. What do you think the new milestones will be? How would you prefer them to be?
- Do you have any recommendations on further reading for us in order to gain better knowledge regarding this area?

Appendix 3 – Interview Naturvårdsverket

Questions regarding the article: *Textile and textile waste – proposals for new milestones in the environmental system*. The interview was performed over email with Yvonne Augustsson, administrator at Naturvårdsverket, and response to the questions was received the 17th of March.

- The article describes proposed milestones, what is the probability for these to go from propositions to actual milestones, and when do you think this might happen?
- Milestones are, if we understand it correctly, guidelines rather than laws. Do you think that laws will be implemented regarding textile waste and producer responsibilities? And in that case, when?
- We read an article from last fall that claimed that if the red/green parties wins the election the responsibility for textile waste would remain on the municipalities instead of the producers. As the red/green parties won the election, we wonder how this affect the question regarding extended producer responsibility?

Appendix 4 –Interviews Round 1

Basic facts:

Gender:

Age:

Member of Loyalty Club:

Shopping

To get a basic understanding of the customers behavior and their shopping experience so that their pains and gains can be identified. Additionally the customers' perceptions of the products are essential.

Questions

- **When you go shopping, is there something you do immediately before to prepare? Or after?**
 - **Why did you go shopping today, what is the purpose of your visit?**
 - **How often do you go shopping?**
 - **At MQ?**
 - **Based on what criteria do you base a purchase decision?**
 - **What channels do you use for shopping clothes?**
 - **What is the ratio for each channel?**
 - **Why is it like that?**
 - **MQ?**
- **For how long on average do you keep a garment?**
 - **Is it the same for garments bought at MQ?**
- **If you could wave a magic wand and change anything about how you shop clothes, what would it be?**

MQ

To understand the customers shopping experience while buying clothes from MQ and assess what they value and what can be improved.

Questions

- **What do you expect when shopping at MQ?**
 - **What do you expect when using clothes from MQ?**

Sustainability

To evaluate the customer awareness of the sustainability/resource limitations issue. Also to assess in what extent they engage in sustainability activities today, both overall and specifically regarding clothes.

Questions

- **What do you do with used clothes that you do not want anymore?**
 - **Why?**
 - **Tell be about the last time you donated used clothes for reuse or recycling?**
 - **How and why?**
 - **How often do you donate used clothes for reuse or recycling? Let's say how many times in the last year?**

- **Have you ever bought clothes from a second hand store?**
 - **Why?**
 - **Tell me about the last time.**
 - **Why?**
 - **How?**
- **Have you ever bought clothes from a sustainable collection, such as H&M Conscious or Lindex Sustainable Stile?**
 - **Tell me about the last time.**
 - **Why?**
- **Can you describe in what way and to what extent you believe that your purchases of clothes affect sustainability?**
 - **Tell me about the last time you considered resource limitations?**
- **If you had sustainable clothes today, how would that make your life better?**

Appendix 5 –Interviews Round 2

Basic facts:

Gender:

Age:

Member of Loyalty Club:

Design

To get a basic understanding of the how the customers value and are aware of different types of materials.

Questions

- **Which criteria do you base your purchase decisions?**
- **How do you value material when you shop clothes?**
 - **How do you evaluate it?**

Prolonging lifecycle

To get a basic understanding of the how the customers today engage in order to prolong their clothes' lifecycles, and what they believe can be improved.

Questions

- **Tell me about the last time you looked at the care label that describes for example the material and laundry advice?**
 - **Why did you do it?**
 - **How often do you do it?**
 - **In what kind of situations do you do it?**
 - **How does the information on the care label affect your purchasing decision?**
 - **How does it affect how you take care about the garment, do you follow the laundry advices?**
- **Do you actively look for information regarding how to care for your clothes?**
 - **How?**
- **Tell me about the last time you repaired torn clothes?**
 - **Why did you do it / not do it?**
 - **How did you do it?**
 - **In what situations do you do it?**
 - **What would have to change for you to start doing it/ doing it to a greater extent?**
- **If you had a magic wand and could change whatever you prefer in the process of repairing clothes, what would it be?**
- **What do you do with clothes that you do no longer use?**
 - **Why?**

Garment collection

To get a basic understanding of the customers' knowledge and behavior regarding this today, why it is like it is and how it can be improved.

Questions

- **Have you ever donated clothes for collection in a clothing store?**

- **Tell me about the last time you did it?**
 - **What type of garments?**
 - **How did you feel about the process, is there anything that could be improved?**
 - **Would you be interested in donating clothes in MQ's stores?**
- **Why did you do it / not do it?**
- **How did you get information about the possibility to do this?**
- **What do you think happens with clothes that you donate in clothing stores?**
- **How would you prefer to receive information regarding how the clothes you donate affect sustainability?**
 - **How would that kind of information affect your behavior?**
- **What would make you donate more clothes for reuse/recycling?**

Facilitate reselling

To get a basic understanding of the customers current attitude and behavior regarding reselling of clothes.

Questions

- **Describe how and to what extent you have sold used garments?**
 - **Why did you do it?**
 - **What are the obstacles?**
 - **Would you prefer to sell online or through a physical channels?**
- **Have you ever bought or used second hand clothes?**
 - **Why/why not?**
 - **Tell me about the last time you did it?**
 - **How did you do it, through what channels?**
 - **What can be improved in order to make you do it / make you do it to a greater extent?**
- **If you had the possibility to buy second hand clothes online or in a store, what would you choose and why?**

Future perspective

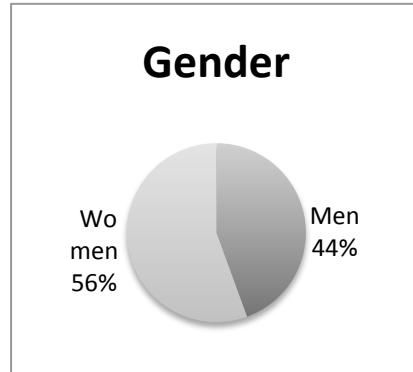
Questions regarding the future are not optimal since the interviewees tend to answer optimistically. However this question was asked in order to understand the existing sense around areas that might become more important.

Question

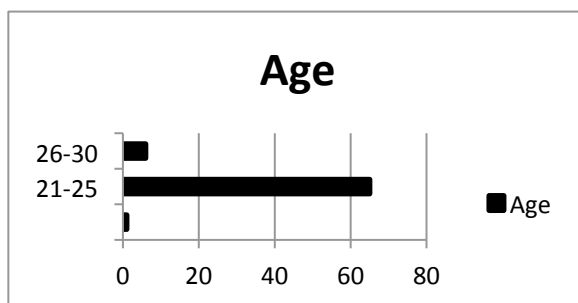
- **In the beginning of this interview you mentioned that you base your purchasing decisions on XX. How has this changed over time and how do you believe it will change in the future? Is there any areas that you believe will be of greater importance?**

Appendix 6 - Results from Survey

Gender	Number	Percentage
Men	32	44,44%
Women	40	55,56%



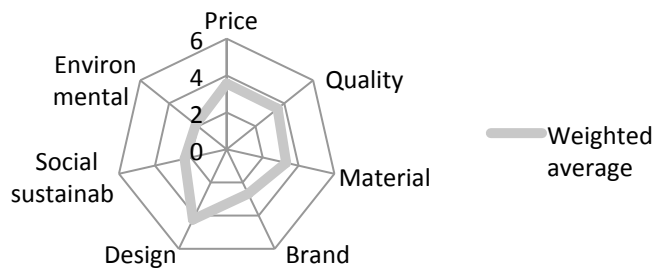
Age	Number	Percentage
<21	1	1,39%
21-25	65	90,28%
26-30	6	8,33%



How do the following factors influence your purchasing decisions?

	It is unimportant for my purchase decision	It influences my purchasing decision to a limited extent	It influences my purchase decision	It influences my purchase decision to a great extent	It is crucial for my purchase decision	Weighted average
Price	2	5	24	32	9	3,57
Quality	0	8	26	30	8	3,53
Material	1	12	29	24	6	3,31
Brand	8	24	25	13	2	2,68
Design	1	0	12	27	32	4,24
Social sustain	12	31	20	7	1	2,35
Environment	16	35	14	5	1	2,15

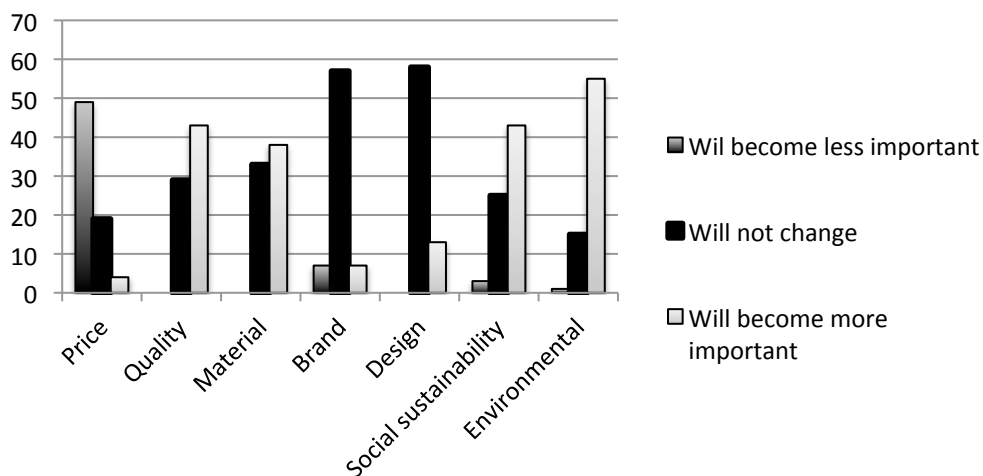
How do the following factors affect your purchasing decisions?



How do you think your purchase criterias will change in the future?

	Wil become less important	Will not change	Will become more important	Weighted average
Price	49	19	4	1,38
Quality	0	29	43	2,6
Material	0	33	38	2,54
Brand	7	57	7	2
Design	0	58	13	2,18
Social sustainab	3	25	43	2,56
Environment	1	15	55	2,76

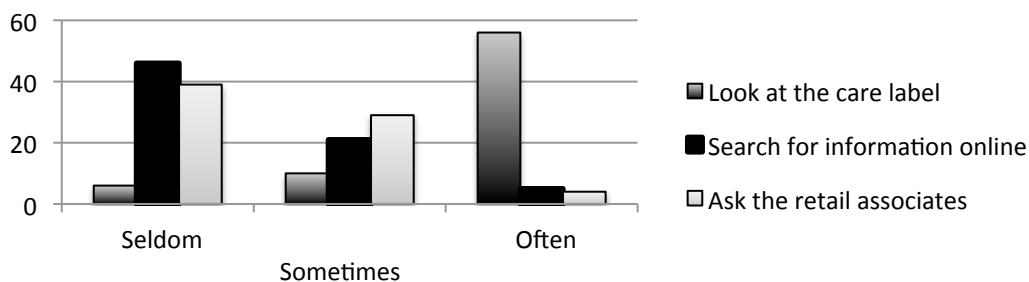
How do you think that your purchase criterias will change in the future?



How do you find information about how to take care of your garments? For example regarding laundry?

	Seldom	Sometimes	Often	Weighted average
Look at the care label	6	10	56	2,69
Search for information online	46	21	5	1,43
Ask the retail associates	39	29	4	1,51

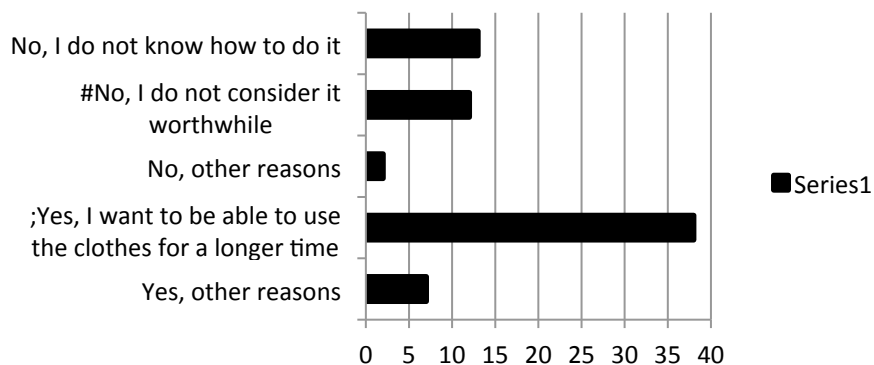
How do you find information about how to take care of your garments? For example regarding laundry?



Do you repair torn clothes?

Yes, other reasons	7
Yes, I want to be able to use the clothes for a longer time	38
No, other reasons	2
No, I do not consider it worthwhile	12
No, I do not know how to do it	13

Do you repair torn clothes?

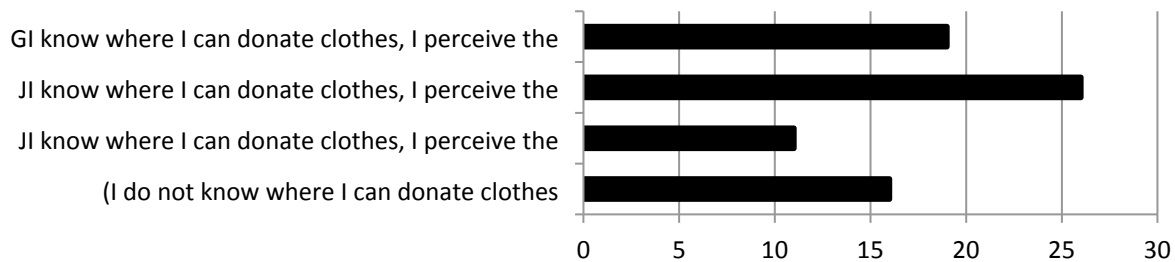


Factors regarding garment collection

How do you perceive the accessibility of places to donate clothes for reuse or recycling?

I do not know where I can donate clothes	16
I know where I can donate clothes, I perceive the accessibility as limited	11
I know where I can donate clothes, I perceive the accessibility as neutral	26
I know where I can donate clothes, I perceive the accessibility as good	19

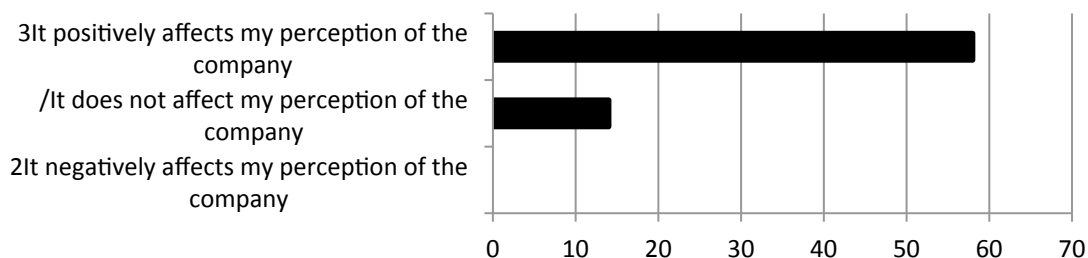
How do you perceive the accessibility of places to donate clothes for reuse or recycling?



Some clothing stores collect used clothes in their stores in exchange for discount vouchers. How does this affect your perception of the company?

It negatively affects my perception of the company	0
It does not affect my perception of the company	14
It positively affects my perception of the company	58

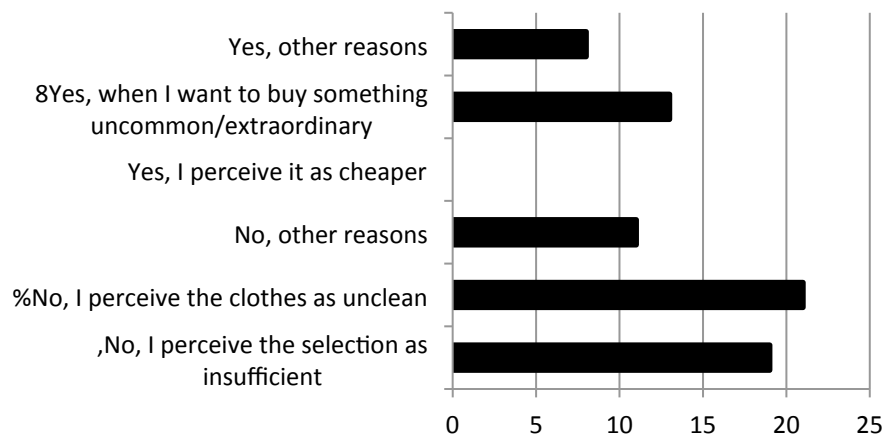
Some clothing stores collect used clothes in their stores in exchange for discount vouchers. How does this affect your perception of the company?



Do you shop second hand items?

No, I perceive the selection as insufficient	19
No, I perceive the clothes as unclean	21
No, other reasons	11
Yes, I perceive it as cheaper	0
Yes, when I want to buy something uncommon/extraordinary	13
Yes, other reasons	8

Do you shop second hand items?



Appendix 7 – Company overview

Company	Concept	Size and reach
H&M	<i>H&M should always have the best customer offering in each and every market. We offer collections that are wide-ranging and varied for women, men, teenagers and children.¹</i>	<ul style="list-style-type: none"> • Sales: 150 090 MSEK (Group) in 2013 • 2,936 stores in 53 markets • Shop online in 9 markets²
Lindex	<i>A world class fashion experience – our vision and what we strive for in every decision made by Lindex designers. World travels by our buyers and designers merged with Swedish freshness and simplicity, makes our fashion and accessories easy to wear in all occasions.³</i>	<ul style="list-style-type: none"> • Sales: 650.6 MEUR in 2014 • Almost 500 stores in 16 markets • Shop online available in 28 countries⁴
Gina Tricot	<i>At Gina Tricot, we like to keep things simple. Our strength has always been keeping things simple, which applies to our design and working methods alike. In 1997, we started a chain of stores offering commercially viable, feminine tricot tops. Fifteen years later, we've grown to become an international fashion destination offering clothing and accessories to fashion-conscious women in 28 countries⁵.</i>	<ul style="list-style-type: none"> • Sales: 2 300 MSEK in 2012 • About 180 stores in 5 markets • Shop online available in 28 countries⁶
Kappahl	<i>Our business concept is simple: to offer value-for-money fashion with a wide appeal – for women, men and children, with particular emphasis on the woman in the prime of her life. For us fashion is about one thing – you⁷</i>	<ul style="list-style-type: none"> • Sales: 4 743 MSEK in 2013/2014 • About 400 stores in 4 markets • Shop online in Sweden⁸
Filippa K	<i>Filippa K is one of top leading Scandinavian fashion companies, with a strong position in long lasting fashion. The</i>	<ul style="list-style-type: none"> • Sales: 70 MEUR in 2013 • Available in 20 markets, through 50
	<i>core values of Filippa K are Style, Simplicity, and Quality⁹</i>	brand stores, ecommerce and over 600 retailers ¹⁰ .
Houdini	<i>We are Houdini, a Swedish company founded in 1993. Our products rock. Both in terms of performance and the way they help you perform. Are we the biggest sports brand? Not even close. We don't aim to be, we only aim to be the best¹¹</i>	<ul style="list-style-type: none"> • Sales: 75 MSEK in 2014¹². • 6 brand stores in two countries, resellers in 16 countries • Shop Online¹³.
Klättermusen	<i>Maximum safety for you, minimum impact on nature¹⁴</i>	<ul style="list-style-type: none"> • Sales: 46 MSEK in 2014 • Concept store in Sweden • Resellers in 15 countries • Shop online within the EU¹⁵.
Gudrun Sjödén	<i>Gudrun Sjödén are manufacturing home textiles and clothes with a Scandinavian design language suitable for all ages and bodies¹⁶</i>	<ul style="list-style-type: none"> • Sales: About 500 MSEK in 2012¹⁷ • 6 stores in Sweden. Stores in 7
		countries
Polarn O. Pyret	<i>Polarn O. Pyret is more than just children's clothing. Started in 1976, our stripes have deep roots in Swedish culture. Our concept has not changed since our first striped T-shirt: children need clothes they can play in. Clothing that let children be children no matter what the weather. For Polarn O. Pyret, this means good-looking clothes that make life easier. Clothes that can withstand wear and tear and are handed down from brother to sister. When we start with what's best for children, environmental and social responsibilities fall into place. What's best for children is good for adults, too¹⁹</i>	<ul style="list-style-type: none"> • Shop Online¹⁸ • Sales: 553 MSEK 2013/2014 • 69 stores in Sweden (52 franchise). Present in 11 countries, 143 stores in total (52 Franchise) • Shop online²⁰.
Nudie Jeans	<i>We love jeans, a passion we share with everyone who mourns a pair of worn out jeans as a close friend. Jeans share the same soul and attitude as music. The inspiration springs from the same dreams. Besides denim, only leather has the ability to age so beautifully formed by its user into a second skin. Your jeans live your lifestyle. The longer you wear them, the more character and attitude they get.²¹</i>	<ul style="list-style-type: none"> • Sales: 341 MSEK in 2013²² • 4 repair shops. Available in stores on 4 continents • Shop online in 40 countries²³
MQ	<i>At the core of MQ's concept is a carefully selected range comprising a mix of external and strong proprietary brands. The aim is that fashion-conscious customers in all markets will have MQ as their first choice when looking for strong brands reflecting high fashion content and high quality. MQ offers fashion that has been produced responsibly.²⁴</i>	<ul style="list-style-type: none"> • Sales: 1452 MSEK in 2013/2014 • 121 stores in two countries (116 in Sweden) • Shop Online²⁵.
Renault	<i>For 115 years, passion has been the Group's driving force as we continue to innovate and develop mobility solutions for all. Our highly skilled employees convey this passion every day in the design and reliability of their vehicles. This is also why millions</i>	<ul style="list-style-type: none"> • Sales: 41 billion EUR in 2014 • Stores in 128 countries, 12 126 dealers • Three brands: Renault, Dacia, and

	<i>of consumers, business users and top-level sportspeople choose Renault</i> ²⁶	Renault Samsung Motors ²⁷
IKEA	<i>Our business idea is to offer a wide range of well-designed, functional home furnishing products at prices so low that as many people as possible will be able to afford them</i> ²⁸ .	<ul style="list-style-type: none"> • Sales: 29,3 billion EUR in 2014 • 315 stores in 27 countries²⁹.
Vodafone	<i>Our core purpose is to empower our customers to be confidently connected – whether at home, during the daily commute, in the office, or abroad – wherever and however they choose</i> ³⁰	<ul style="list-style-type: none"> • Sales: 43.6 billion GDP in 2014 • Operations in 27 countries³¹
Tetra Pak	<i>Tetra Pak is the world's leading food processing and packaging solutions company. Working closely with our customers and suppliers, we provide safe, innovative and environmentally sustainable products and services to make food safe and available, everywhere</i> ³²	<ul style="list-style-type: none"> • Sales: 11 billion EUR in 2013 • Present in more than 170 countries³³
Philips	<i>Philips is a diversified technology company, preliminary focused in the areas of healthcare, consumer lifestyle and lighting. Their goal is to improve lives of 3 billion people a year by 2025 and they aim to make the world more sustainable and healthier through innovation</i> ³⁴ .	<ul style="list-style-type: none"> • Sales: 21,4 billion EUR in 2014 • Present in more than 100 countries³⁵.

¹ Citation: H&M (2015) Our business concept. *H&M*. <http://about.hm.com/en/About/facts-about-hm/about-hm/business-concept.html#cm-menu> (2 Mars 2015)

² H&M (2013) H&M Conscious Actions Sustainability Report 2013. http://sustainability.hm.com/content/dam/hm/about/documents/en/CSR/reports/Conscious%20Actions%20Sustainability%20Report%202013_en.pdf (1 March 2015)

³ Citation: Lindex (2015a) Our fashion concepts. *Lindex*. <http://about.lindex.com/en/our-fashion-concepts/> (3 Mars 2015)

⁴ Lindex (2015b) Butiker. *Lindex*. <http://about.lindex.com/se/butiker/> (1 March 2015)

⁵ Citation: ginatricot (2015) Get to know us. *ginatricot* <http://www.ginatricot.com/ceu/en/eu/the-company/about-ginatricot/ceucontent-ceucorporate-ceucorporatepage-p1.html> (2 Mars 2015)

⁶ Gina Tricot (2015) Om Gina Tricot. *Gina Tricot*. <http://www.ginatricot.com/cse/sverige/foretaget/om-gina-tricot/csecontent-csecorporat-ceucorporatepage-p1.html> (1 March 2015)

⁷ Citation: KappAhl (2015a) Fashion is about you. *KappAhl*. <http://www.kappahl.com/en-US/about-kappahl/about-kappahl/> (2 Mars 2015)

⁸ Kappahl (2015b) Snabba fakta. *Kappahl*. <http://www.kappahl.com/sv-SE/om-kappahl/om-kappahl/snabba-fakta/> (1 March 2015)

⁹ Citation: Filippa K (2015) A leading Scandinavian fashion brand. *Filippa K*. <http://career.filippa-k.com/> (3 Mars 2015)

¹⁰ Filippa K (2015e) Career. *Filippa K*. <http://career.filippa-k.com/> (1 March 2015)

¹¹ Citation: Houdini (2015) We are Houdini. *Houdini*. <http://www.houdinisportswear.com/en/about-houdini> (2 Mars 2015)

¹² Allabolag (2015) Houdini Sportswear AB. *Allabolag.se* <http://www.allabolag.se/5566235700/bokslut> (1 March 2015)

¹³ Houdini (2015) Hitta närmaste butik. *Houdini Sportswear AB*. <http://www.houdinisportswear.com/se/finder> (1 March 2015)

¹⁴ Citation: Klättermusen (2015a) Klättermusen. *Klättermusen* http://klattermusen.se/start_SE.php?lang=EN&curr=EUR (4 Mars 2015)

¹⁵ Klättermusen (2015b) Retailers. *Klättermusen*. <http://klattermusen.se/retailers.php?lang=EN&curr=EUR&sex=> (1 March 2015)

¹⁶ Gudrun Sjödén (2015) Vår affärsidé. *Gudrun Sjödén*. <http://www.gudrunsjoden.com/se/gudruns-world/gudruns-ide> (2 Mars 2015)

¹⁷ Matsson, K. (2013) "Kulturtanten" ska sätta färg på New York. *Svenska Dagbladet* 8 March 2013. Retrieved from http://www.svd.se/naringsliv/branscher/handel-och-tjanster/kulturtanten-ska-satta-farg-pa-new-york_7971272.svd (1 March 2015)

¹⁸ Gudrun Sjödén (2015) Gudruns Värld. *Gudrun Sjödén*. http://www.gudrunsjoden.com/se/gudruns-world/stores_se (1 March 2015)

¹⁹ Citation: Polarn O. Pyret (2015) About Us. *Polarn O. Pyret*. http://theplayfullife.polarnopyretusa.com/?page_id=366 (4 Mars 2015)

²⁰ RNB (2014) RNB Retail And Brands Hållbarhetsredovisning 2013/2014. http://www.rnb.se/PageFiles/343/RNB_H%C3%A5llbarhetsredovisning_2013_2014_FINAL.pdf (1 March 2015)

²¹ Citation: Nudie Jeans (2015a) The Naked truth about denim. *Nudie Jeans*. <http://www.nudiejeans.com/press/package/entire-denim-collection-made-from-organic-cotton/> (3 Mars 2015)

²² Carlsson, F. (2013) Göteborgsföretaget Nudie Jeans Årets Grundare Väst 2013. *Mynewsdesk.com*. 16 May 2013 http://www.mynewsdesk.com/se/founders_alliance/pressreleases/goeteborgsfoeretaget-nudie-jeans-aarets-grundare-vaest-2013-867068 (1 March 2015)

²³ Nudie Jeans (2015b) Store locator. *Nudie Jeans*. <http://www.nudiejeans.com/stores/#/> (1 March 2015)

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- ²⁵ MQ (2014) MQ Årsredovisning. http://ir.mq.se/afw/files/press/mq/MQ_AR_13_14_Final%20141219.pdf (25 January 2105)
- ²⁶ Citation: Group Renault (2015b) Our passion. *Group Renault*. <http://group.renault.com/en/passion-2/> (2 Mars 2015)
- ²⁷ Group Renault. (2015a) Key Figures. *Group Renault*. <http://group.renault.com/en/our-company/renault-at-a-glance-2/renault-at-a-glance/> (2 Mars 2015)
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http://www.ikea.com/ms/en_CN/pdf/yearly_summary/ikea-group-yearly-summary-fy14.pdf (2 Mars 2015)
- ²⁹ IKEA (2014) IKEA Group FY14 Yearly Summary. *IKEA*. http://www.ikea.com/ms/en_CN/pdf/yearly_summary/ikea-group-yearly-summary-fy14.pdf (2 Mars 2015)
- ³⁰ Citation: Vodafone Group Plc (2014) Empowering everybody to be confidently connected. *Vodafone Group Plc*. Page 1.
http://vodafone.com/content/annualreport/annual_report14/downloads/full_annual_report_2014.pdf (3 Mars 2015)
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- ³² Citation: Tetra Pak (2014) Tetra Pak Sustainability Update 2014. *Tetra Pak*. Page 6.
<http://sustainability.tetrapak.com/sites/default/files/Sustainability%20Update%20Report%202014.pdf> (4 Mars 2015)
- ³³ Tetra Pak (2013) Tetra Pak I siffror. *Tetra Pak*. <http://www.tetrapak.com/se/about-tetra-pak/the-company/facts-and-figures> (4 Mars 2015)
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