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## **MUD Jeans - a circular business model**

*-- The drivers and barriers of circular economy in the fashion industry*

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# Abstract

*Title:* Mud Jeans - a circular business model: The drivers and barriers of circular economy in the fashion industry

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*Keywords:* Circular economy, MUD Jeans, fashion industry, drivers, barriers, sustainability, company, circular business model.

*Purpose:* The purpose of this thesis is to have a more and deeper understanding of the drivers and barriers of circular economy in a company from consumers' as well as companies' point of view.

*Theoretical perspectives:* The theoretical perspective used is the circular economy. A thorough presentation of drivers and barriers of circular economy with a company.

*Methodology:* A mixed method with interviews, a survey, and internet documents.

*Empirical foundation:* Data from five interviews, a survey, and internet documents aims at explaining what the drivers and barriers are for MUD Jeans and circular economy.

*Conclusions:* Presenting empirical findings in relation to theory, and suggestions for future research.

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*Elina Solbrand*

Lund, May 2020

*Yihan Dong*

Lund, May 2020

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# 1. Introduction

## 1.1 Background

The linear economy has been the prevalent economic model since the late 18<sup>th</sup> century, in which mining companies extract virgin raw materials and processes them into products by other companies (Guldmann, 2016). According to Guldmann (2016), the products is used for a given time depending on the type of product that is sold to customers and disposed of ultimately. Guldmann (2016) also states that the disposal of products are landfilled or incinerated with little or no attempt to recover the products or most of the embedded materials. In such an economy, the demand for raw materials continues to grow, although there are ingenious methods of mining and extracting raw materials (Blomsma & Brennan, 2017). Still, non-renewable resources will inevitably be exhausted at some point in this economic model (Blomsma & Brennan, 2017).

Blomsma and Brennan (2017) state that material scarcity is not the only result of the linear production paradigm. Adding to material scarcity it also has a considerable negative impact on the environment including climate change, destruction of natural habitats, and waste generation (Blomsma & Brennan, 2017). Because of this the concept, circular economy, which is an emerging framework around waste and resource management that aims to provide alternatives to prevalent linear take-make-dispose practices by promoting the concept of waste and resource recycling, offers potential solutions to certain challenges (Blomsma & Brennan, 2017).

The fashion industry is a good example, according to Joy and Peña (2017), of a heavily polluted and resource-intensive industry. The future success of the fashion industry depends on reducing the environmental and social impact of apparel production throughout its life cycle (Joy & Peña 2017). This means reducing the impact associated with planting and producing textile fibers, which not only focuses on a few types of fibers (usually cotton, polyester, or their blends) but also establishes alternative portfolios with low-intensity fiber resources. Although the production of cotton and polyester has different environmental impacts they are both harmful to the environment (Joy & Peña

2017). Cotton is ubiquitous in apparel production which has the greatest negative impact on the environment (Joy & Peña 2017).

## **1.2 Problematization**

European Parliamentary Research Service (EPRS) (2019) states that the global textile and apparel industry consumed 79 billion cubic meters of water, 1715 million tons of carbon dioxide emissions, and 92 million tons of waste in 2015. The EPRS (2019) also estimates that these numbers will increase by at least 50% under a business-as-usual scenario by 2030. It claims that the production of raw materials accounts for a large proportion of the environmental impact of the textile and apparel industry, especially the cultivation of natural fiber crops. The production of raw materials accounts for a large proportion of the environmental impact of the textile and apparel industry, especially the cultivation of natural fiber crops (European Parliamentary Research Service 2019).

According to a report by European Clothing Action Plan (ECAP) (2017), cotton accounts for more than 43% of all fibers used for clothing on the EU market which is considered to be particularly problematic since it requires large amounts of land, water, fertilizers, and pesticides, in its production. In the report it is stated that compared with traditional cotton, biological cotton's impact on the environment can be greatly reduced because it requires less water and pollution in its production.

In addition, according to the Global Fashion Agenda & The Boston Consulting Group report (2017), natural fibers have the greatest impact on the environment, and silk has a particularly harmful effect on the depletion of natural resources and global warming. In the report it is stated that cotton contributes excessively to water shortages, while wool causes greenhouse gas emissions. At the same time, the industry is testing the use of fabrics containing less natural fibers, such as hemp, flax, linen and nettle, which require less water, fertilizers and pesticides (European Parliamentary Research Service 2019).

According to the European Parliamentary Research Service (EPRS) (2019), polyester accounts for 16% of fibres found in clothes. Polyester is made of fossil fuels and is

non-biodegradable (European Parliamentary Research Service 2019). EPRS (2019) emphasizes that a pile of polyester clothing (as well as clothes made of nylon and acrylic fibers) can emit 700,000 microplastic fibers, which leads to releasing toxins into the environment which eventually enter the human food chain. When washing clothes about 500,000 tons of plastic microfibers are released which eventually enter the ocean (European Parliamentary Research Service 2019).

On the other, EPRS (2019) also states that the fashion industry is experimenting with bio-based polyesters, which are at least partially made from renewable resources, such as lipids in starch, corn, sugar cane, sugar beet, and vegetable oils. However, the current challenge is to find raw materials that do not require large amounts of water or pesticides, and raw materials that do not compete with food production (European Parliamentary Research Service 2019).

Furthermore, the European Parliamentary Research Service (EPRS) (2019) presents that Manmade cellulosic (MMCs) accounts for about 9% of the fibers used in clothing on the EU market, which is derived from cellulose dissolved in the wood pulp of trees. It states that the most commonly used fibers is viscose, which is made from renewable plants and is biodegradable, also known as rayon.

Since the global production of Manmade cellulosic (MMCs) doubled from 1990 to 2017, the sustainable procurement of cellulose has become a major challenge according to EPRS (2019). Therefore, the fashion industry is searching for more sustainable and innovative materials such as lyocell, which is made from eucalyptus cellulose, grows quickly, and does not require irrigation or pesticides (European Parliamentary Research Service 2019).

We have grown a fond interest in how the circular business model addresses the environmental challenges facing the fashion industry due to the serious environmental pollution caused by the fashion industry. This thesis will study a successful circular business model - MUD Jeans, to analyze the drivers and barriers of the circular economy



within a company in depth. Mud Jeans is a Dutch fashion company that provides a range of apparel such as jeans, T-shirts, shirts, hoodies and handbags (Guldmann, 2016). Mud Jeans differs from most other fashion companies in that customers can rent jeans (Guldmann, 2016).

### **1.3 Purpose and research question**

The purpose of this thesis is to have a more and deeper understanding of the drivers and barriers of circular economy in a company from consumers' as well as companies' point of view.

In order to fulfill our purpose, we formulated a broad research question and a specific research question. The research questions were formulated as follows:

- *The broad research question: what are the drivers and barriers of the circular economy within a company?*

- *The specific research question: what are the drivers and barriers of MUD Jeans in the circular economy?*

### **1.4 Thesis overview**

This thesis consists of six sections. The first section presents the motivation for researching innovative circular business models and raises two research questions. The second section is to answer the first research question from a theoretical perspective, explaining the drivers and barriers to the circular economy. The following section presents the methods of collecting empirical data, through internet documents, survey, and interviews, as well as the credibility and limitation of the thesis. The fourth section's purpose is to present and analyze the empirical data from the perspective of the company and consumers to answer the second research question. We will use qualitative data to address this research question from the perspective of the company while using both

qualitative and quantitative data from the consumer's point of view. The end of the thesis is the conclusion of the research results, discussion, and suggestions for future areas of research.

## **2. Theoretical framework**

*This chapter is about the theory of circular economy. The purpose is to address the broad research question: what are the drivers and barriers of the circular economy within a company? This chapter will be divided into three sections. The first section introduces the concept of the circular economy, the second section describes the drivers of the circular economy, and last but not least the barriers of the circular economy will be presented.*

### **2.1 The circular economy (CE)**

*This section will introduce the concept of the circular economy and illustrate it with the help of a figure.*

The pressure on our global resources and climate is increasing due to human activities, and the circular economy is considered a promising way to alleviate the pressure on our global sustainability (Bocken et al. 2016). The European Commission has adopted strategies linked to the circular economy such as (Bocken et al. 2016):

boosting recycling and preventing loss of valuable materials; creating jobs and economic growth; showing how new business models, eco-design and industrial symbiosis can move Europe toward zero-waste; and reducing greenhouse emissions and environmental impacts (Bocken et al. 2016, pp.308).

A circular economy is a system model in which every part of the product is regarded as a valuable resource and should be handled carefully from cradle to cradle (Guldmann, 2016). It is not only within the boundaries of the traditional supply chain but also extends to consider the scope of raw material procurement and the use and disposal stages of the company's products (Guldmann, 2016). The circular economy recommends the establishment of a method of production and use of commodities, in which resources should be saved as much as possible (Guldmann, 2016).

Therefore, Guldmann (2016) states that resources are circulated through the closed-loop without end in the circular economy. She claims that it can extend the service life of products, components, and materials, and thereby increase resource efficiency. Guldmann (2016) also states that it can reduce or ideally eliminate the need for new products and virgin raw materials through maintenance, reuse, remanufacturing, and recycling.

Figure 1. illustrates the basic principles of the economic model and the center of the figure shows the traditional linear supply chain from top to bottom (Guldmann, 2016). Contrary to the linear value chain, the circle on the side of the figure shows the possibility of keeping the product, component or material in four different closed cycles or resource loops (Guldmann, 2016). These are called maintenance, reuse/redistribute, refurbish/remanufacture and recycle loops (Guldmann, 2016).

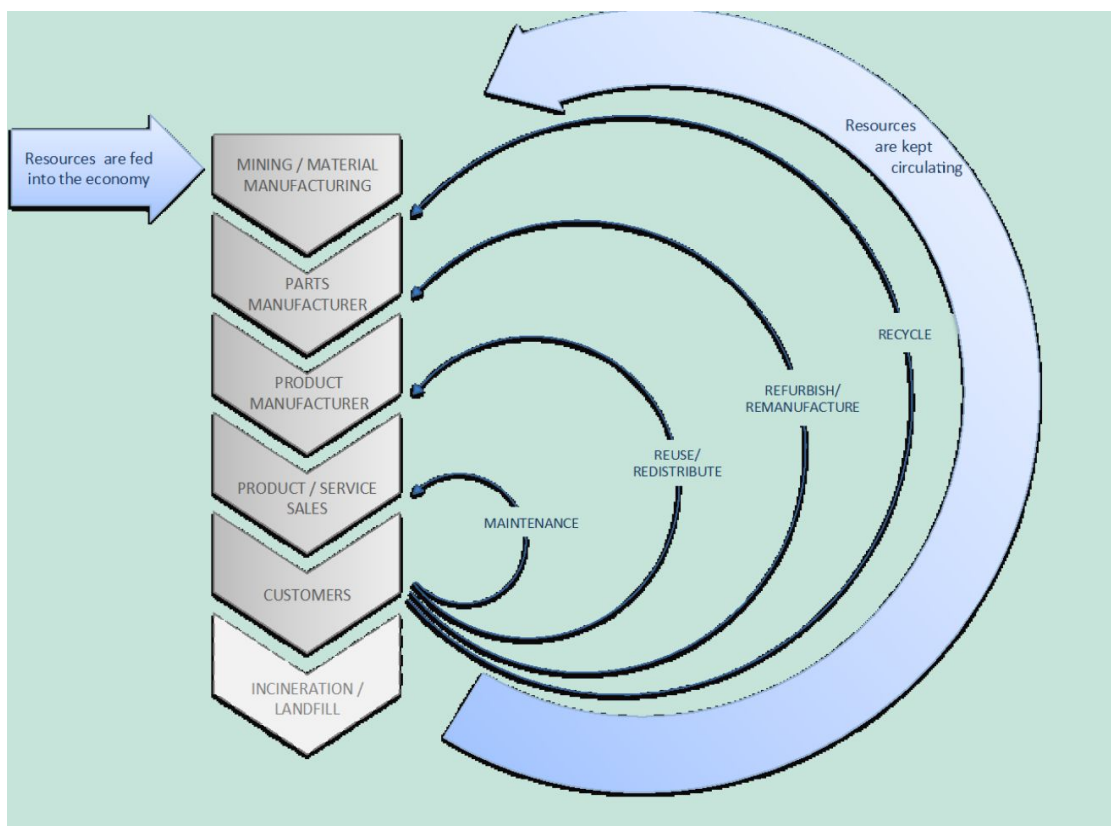


Figure 1. The flow of resources in a circular economy from Guldmann (2016, p10).

## **2.2 Drivers for the circular economy**

*This section focuses on the four main drivers affecting the company's adoption of the circular economy: economic drivers, regulatory drivers, environmental drivers, and resource-related risk drivers.*

### **The economic drivers**

According to Gusmerotti et al. (2019), economic drivers may be more important when explaining the adoption of circular economy practices. They claim that the circular economy is based on the concept of resource efficiency, that is, less money and more output, so it can save costs. For example, this relationship is due to the substitution of production inputs, reuse or recycling, better utilization of by-products, conversion of waste into products, and reduction of waste disposal costs (Gusmerotti et al. 2019).

In addition, Gusmerotti et al. (2019) argue that resource efficiency also depends on the adoption of production optimization strategies: reducing waste, optimizing the use of energy, water, and resources, and adopting lean production principles, etc. They also state that the successful implementation of a resource efficiency strategy can reduce production costs, so companies facing cost reduction are more likely to adopt this strategy. In other words, the need to reduce production costs serves as an effective driver for adopting CE practices (Gusmerotti et al. 2019).

### **The regulatory drivers**

Regulatory initiatives may impose mandatory pressure on organizations that are forced to comply with new environmental regulations, in addition, environmental regulations are external signals that allow managers to focus on potential issues and determine their response (Gusmerotti et al. 2019). According to Gusmerotti et al. (2019), the EU has issued a series of circular economy strategies. They state that the circular economy is the

core of the latest strategy aimed at combining economic growth and environmental protection in the EU. The EU 's circular economy plan includes ecological design, waste, food waste, packaging waste, secondary raw materials, by-products, plastics, key raw materials, biomass and bio-based materials, etc (Gusmerotti et al. 2019).

### **The environmental drivers**

Gusmerotti et al. (2019) believe that the use of a circular business model can produce environmental benefits and natural resources in reducing raw materials, as well as waste prevention and minimization. They found that the attitudes, expectations, and motivations of senior management to the environment are important factors that explain the company's passion for the environment. For example, when managers have a high sense of responsibility and awareness of the advantages, disadvantages and tools of environmental management, they usually pay more attention to environmental issues within the organization (Gusmerotti et al. 2019).

Moreover, Gusmerotti et al. (2019) state that the personal values of senior managers affect their environmental attitudes, which indirectly affect their reactions. They believe that the attitude of top management to the environment also plays a key role in environmental management practices in small and medium-sized enterprises.

Furthermore, Stern et al. (1999) argue that personal attitudes and ethics are both prerequisites for environmental protection behavior in an organization according to the Value Belief Norm (VBN) theory. Gusmerotti et al. (2019) believe that moral norms will affect personal beliefs, and individuals will be responsible for the negative consequences of their actions when violations of moral norms. Therefore, companies led by environmentally conscious leaders tend to adopt environmentally friendly behaviors (Gusmerotti et al. 2019).

### **The resource-related risk drivers**

Gusmerotti et al. (2019) state that the global demand for resources is increasing, driven by population growth and improved living standards, according to the European Commission. They also state that the demand for resources will continue to rise; the world's population will increase by 200,000 people every day and is expected to exceed 9 billion by 2050, and the consumption level of the middle class in today's developing world will be three times the current level by 2030.

As a result, after decades of growth based on the decline in prices of real resources, there are signs that the world has entered a new stage in which the prices of real resources are rising (Gusmerotti et al. 2019). All organizations depend directly or indirectly on natural resources since natural capital or the resulting ecosystem is the source of raw materials for all tangible assets according to natural resource dependence theory (Gusmerotti et al. 2019). Therefore, Gusmerotti et al. (2019) believe that if managers cannot solve the problem of outstanding scarcity, especially the increasing demand for goods and services, then coupled with the increasing scarcity of natural resources, this may put the supply chain at risk.

### **2.3 Barriers for the circular economy**

*In this section, we will introduce the barriers of small and medium-sized enterprises (SMEs) on circular economy. The barriers are: the company environmental culture barriers, lack of capital, the lack of government support legislation, the lack of information, the administrative burden, lack of technical and technological know-how, and lack of support from the supply and demand network.*

#### **The company environmental culture barriers**

According to Rizos, et al. (2016), the barriers to the company's environmental culture refer to the company's philosophy, habits, and attitudes in implementing circular economy business practices. They believe that managers are also company owners and have an important say in the strategic decisions of many small and medium-sized enterprises (SMEs). For example, some SME managers have a positive attitude towards

circular business models, while others do not (Rizos, et al. 2016). In addition, SMEs owners or managers have different perceptions of risk (Rizos, et al. 2016). A strong risk aversion by the parts of managers may hinder the development of circular economy, even after evaluating the benefits associated with implementing circular economy (Rizos, et al. 2016).

### **Lack of capital**

Rizos, et al. (2016) claim that lack of capital has become one of the most significant barriers for SMEs to adopt circular economy strategies. They state that the transformation from a linear to a circular economic model requires the following activities; distribution planning, inventory management, production planning and reverse logistics network management, which requires the company to invest a lot of time and investment. Rizos, et al. (2016) believe that upfront costs, indirect (time and human resources) costs, and the anticipated payback period are particularly important for SMEs because they are usually more sensitive than large companies to any additional costs incurred by green companies.

In addition, the implementation of the circular economy business model requires continuous monitoring and improvement of the product life cycle (Rizos, et al. 2016). Therefore, the company will need to allocate a large amount of resources so that all parties (i.e. employees and customers) can take responsibility (Rizos, et al. 2016). Moreover, external funds such as EU and government grants are often difficult to obtain, as SMEs staff and management restrictions usually do not allow for assessment of such opportunities (Rizos, et al. 2016).

Furthermore, SMEs often face difficulties in obtaining the guarantees required by banks, and the economic recession makes it more difficult for circular economy propositions to obtain financing capital, as well as there are no new financing methods available to promote innovative business models (Rizos, et al. 2016).

### **The lack of government support legislation**



Rizos et al. (2016) believe that the lack of government-supported legislation (such as providing financing opportunities, training, effective tax policies, laws and regulations, etc.) is a major barrier to obtain environmental investment. They state that due to lack of specificity, coherent and strict legislation usually prevents SMEs from considering integrating green solutions in their operations. For instance, there is no uniform definition or classification of waste materials in the EU waste legislation, which limits the cross-border transportation of waste (Demmers et al. 2016).

In addition, Vanner et al. (2014) believe that the lack of proper market signals (low raw material prices) has exacerbated this situation, because such signals do not encourage the efficient use of resources or the transition to a circular economy. Therefore, externalities (environmental costs), that is, negative impacts on public health and the environment, are not included in product prices (Rizos et al. 2016).

Moreover, the fact that the resource tax is very low may seriously affect the circular business model, so companies tend to buy cheaper raw materials instead of using recyclable raw materials, which usually requires supplementary processing costs (Sarkis et al. 2010). Furthermore, competition regulations hinder cooperation among companies and hinder people's understanding of product cycle design and development, as well as reverse infrastructure (Rizos et al. 2016). Finally, the implementation of environmental regulations is not yet fully effective in some countries, which does not encourage companies to find potential buyers for their by-products (Rizos et al. 2016).

### **The lack of information**

This section is about the lack of information about the benefits of circular economy and environmental legislation (Rizos et al. 2016). According to a survey, most companies either have never heard of the term of circular economy or do not understand its meaning (Rizos et al. 2016). For example, when it comes to giving participants a simple definition of circular economy in terms of reusing and recycling of waste, most people replied that they are actually already working on recycling and repair (Rizos et al. 2016). In addition,

a survey of 157 companies in China shows that most companies have a better understanding of the circular economy, but due to many contextual and cultural factors, there is still a clear gap between the company's consciousness and actual behavior (Liu & Bai, 2014). Rizos et al. (2016) believe that this requires the exchange and dissemination of knowledge and innovation among different stakeholders in the value chain to achieve the transition to a circular economy.

However, Rizos et al. (2016) state that it is often the case that information is kept secret by companies, or people find it difficult to exchange their expertise, which prevents the broader dissemination and development of circular economy business models. In addition, they claim that the lack of an information exchange system has become another barrier to adopting a circular business model. For example, the lack of trust and competition hinders the sharing of knowledge and product information among companies, as well as hindering the co-production of products, innovation and effective end-of-life management product (Rizos et al. 2016).

### **The administrative burden**

According to Rizos et al. (2016), the administrative burden associated with green business practices, such as monitoring and reporting environmental performance data, can be considered complex and almost unaffordable for SMEs. For instance, they argue that small and medium-sized enterprises are required to submit the same data to different institutions in different formats, but usually need to seek expertise in external consultants. In addition, adopting a circular business model may require more complicated and costly management and planning processes (Rizos et al. 2016).

### **Lack of technical and technological know-how**

The lack of technical knowledge will prevent SMEs from transforming a linear into circular business models (Rizos et al. 2016). To change business-as-usual operations, new sustainable production and consumption technologies need to be integrated into the

current linear business model, and capable professionals are required to manage it (Rizos et al. 2016).

However, the demand for environmental protection technologies is usually low and the technical capabilities are insufficient (Geng & Doberstein, 2008). Rizos et al. (2016) state that it may prevent small and medium-sized enterprises from adopting circular economy model because of insufficient technical investment in the design and operation of circular products, the lack of advanced resource efficiency technologies, and low-price signals of raw materials.

### **Lack of support from the supply and demand network**

The barriers to the lack of support for supply and demand networks mainly refer to SMEs' dependence on suppliers and customers to participate in sustainable activities (Rizos et al. 2016). Dervojeda et al. (2014) state that the successful implementation of circular economy requires the cooperation of all parties in the entire supply chain. However, suppliers and partners may be reluctant to participate in innovative circular economy processes due to perceived competitive advantage risks or not paying attention to circular economy practices (Rizos et al. 2016).

According to Rizos et al. (2016), adopting a circular business model may increase the complexity of the entire supply chain, thereby affecting the value chain of products, processes or services. They argue that issues related to governance need to be resolved so that an effective circular business model can be adopted in this case. They explain that it may require cooperation with new market players, as managing the transition in the circular supply chain can be time-consuming, expensive. Especially for small companies, one of the main barriers is the locking of distribution channels and the unpredictable material backflow in circular practices involving product remanufacturing and reuse (Rizos et al. 2016).

In addition, customers' insufficient understanding of the benefits of green products does not promote changes in consumption patterns, and the demand side usually does not have enough pressure on smaller organizations to meet sustainability criteria or develop circular economy business models (Rizos et al. 2016). Thus, the transition to a circular economy requires changes in consumers' lifestyles and behaviors (Rizos et al. 2016). However, some people may think that the circular economy approach is a more costly and difficult to implement alternative, with no obvious benefits, or may be reluctant to change its concepts of consumption and ownership (Edbring et al. 2016). Rizos et al. (2016) state that the public's response is usually difficult to predict, because it largely depends on social norms and external conditions.

Moreover, powerful stakeholders in the value chain may resist changes because of their interests, thereby affecting the development of small businesses towards innovative business models (Rizos et al. 2016). Rizos et al. (2016) claim that SMEs who want to seek to establish a closed-loop business model may face additional costs due to uneven power distribution among stakeholders in the supply chain. Furthermore, they claim that powerful stakeholders with conflicts of interest may also resist policy actions that impose externalities or increase raw material taxes.

### **3. Methodology**

*This chapter is to provide insight to the methodological choices we have made in designing the study, both in terms of the data collection and data analysis. The objective of it is to offer the reader a chance to view the specific techniques and procedures that have been used to form this thesis. Through this section we are making sure that data that has been identified, selected, processed, and analyzed can be observed through a transparent lense. This chapter includes five sections: mixed methods research, gathering empirical material, analytical process, credibility, and limitations.*

#### **3.1 Mixed methods research**

The overall goal of a mixed-method (MM) research is to combine qualitative research and quantitative research to expand and strengthen the conclusions of the research, thereby contributing to the published literature (Schoonenboom & Johnson, 2017). The definition of mixed methods is:

Mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e. g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration (Johnson et al. 2007, p.123).

Schoonenboom and Johnson (2017) state that mixed-method research is about improving knowledge and validity. Adding to this, they claim that the design as a product should have sufficient quality to achieve the legitimacy of multiple validities, which means that the mixed method research that satisfies the relevant combination or a group of quantitative, qualitative, and mixed method validities is studied in each study.

As researchers, we chose to conduct five interviews and then create a survey with questions based on the interview answers that we then shared on one of our personal Facebook pages where 675 Facebook-"friends" exists, just to give an idea of how large of an exposure the survey got. The purpose of sharing the survey online was to gather data that could be analyzed to answer the second research question from the consumer's perspective: how consumers perceive circular economy and what they think of MUD Jeans. The benefit of this approach is that we receive in-depth answers to our research questions from the interviews while receiving quantitative data on opinions shared in the interviews through our survey answers. Meanwhile, we address the second research question to analyze the drivers and barriers of MUD Jeans in the circular economy and how they overcome barriers from the company's perspective through existing documents

### **3.1.1 Qualitative research method**

According to Khan (2014), qualitative research originates from the disciplines of education and social sciences, and the research object is complex human behavior, meanwhile, it is a systematic, subjective method used to illustrate daily life experiences and give them further meaning. He claims that qualitative research enables researchers to explore behaviors, different perspectives, and life experiences through the overall framework to discover the complexity of the situation.

In addition, qualitative research is related to deepening the understanding of a given problem but is not concerned with numerical representation (Faria et al. 2017). The researcher is both the subject and object of the research in qualitative research, and the purpose of the qualitative method is to provide in-depth, descriptive information to understand various aspects of the analyzed problem (Faria et al. 2017). The focus of qualitative research is to understand and explain the dynamics of social relations (Faria et al. 2017).

### **3.1.2 Quantitative research method**

In quantitative research, data can be quantified since the sample is usually large and considered to represent the entire population, and the results are considered to constitute a general and sufficiently comprehensive view of the entire population (Faria et al. 2017). Meanwhile, Faria et al. (2017) argue that disciplines such as mathematics and statistics are of fundamental importance in the analysis and summary of the results obtained. In addition, quantitative research focuses on objectivity, which is particularly applicable when it is possible to collect variables and inferred quantitative measures from the overall sample (Faria et al. 2017). Moreover, quantitative research uses structured procedures and formal means to collect data, and finally, software such as SPSS, R, or Stata is usually used to analyze numerical data through statistical procedures (Faria et al. 2017).

## **3.2 Gathering empirical material**

*As previously stated, the mixed design will serve as our research method for gathering empirical material, which means that we use both qualitative research methods and quantitative research methods to collect data. In order to address the second research question we have gathered data from both the company and consumer perspective. From a company perspective, we've used a qualitative research method by making use of internet documents. From the consumer's perspective, we've used both a qualitative research method and a quantitative research method through conducting interviews and survey answers. In this section we will introduce the method and the process of collecting data found in the internet documents, interviews, and survey, while at the same time provide an insight to our chosen interviewees.*

### **3.2.1 Internet documents**

In order to conduct the drivers and barriers of MUD Jeans in the circular economy, we have chosen to collect data from existing documents to address the second research

question from the company's point of view. According to Bryman and Bell (2011), newspapers, magazines, TV shows, movies and other mass media are potential resources for conducting business and management research.

We have collected a lot of data from MUD Jeans' website regarding MUD Jeans' drivers and barriers when implementing the circular economic model, as well as the measures that the company have taken in the face of the barriers. The limitation of this method is that the relevant data in mass media is quite limited. We can not collect all the data that we need, such as the barriers that the company faces in the circular economy and how they overcome these barriers.

### **3.2.2 Interviews**

Interviews are the most commonly used method in qualitative research (Bryman and Bell 2011). The interviews were made to get an in depth-look into customer's standpoint regarding drivers and barriers of the circular economy and the company MUD Jeans. The interviews gave us an insight into people's consumption behaviors, people's awareness of fashion's impact on the environment, customers attitude to the idea of renting clothes, customers knowledge of MUD Jeans, and their willingness to purchase MUD Jeans products getting to know more about them (we provided facts about Mud Jeans during the interview), while at the same time giving us an idea on how familiar people are with the concept of a circular economy. The interviews consisted of 27 to 29 questions depending on what the interviewees answered as that determined how many follow-up questions were asked.

### **3.2.3 Interviewees**

The choice of interviewees was based on what would be a convenient sample meaning the interviews were made on the people we had close access to. Luckily it was still possible to make an almost (knowing the number of interviews had an uneven number)



even division of gender representation at least. In table 1 you will find information on our chosen interviewees.

Table 1. Information about interviewees

Interviewee	Gender	Age	Nationality	Level of education
1	Female	23	Swedish	Bachelor
2	Female	24	Swedish	Bachelor
3	Female	24	Swedish	High School
4	Male	36	Pakistani	Master
5	Male	30	Iraqi	Bachelor

Interview one and two took place in person. Some of the answers to the interview questions were written down while interviewing. The extent that was written down depended on how fast the interviewee answered and how fast the interviewer could type. The parts of the answers that weren't written down during the interview were written down afterwards by listening to the recordings. Both interviews were recorded with the help of an iPhone. Interview one took 23 minutes and 20 seconds, while interview two took 29 minutes and 53 seconds to record.

The answers to interview three was written as the interview was being held. This depended on the fact that the interviewer was limited in its ability to record. The interviewer was able to write down all the answers during the interview thanks to the interviewee being generous with her time, and being able to repeat some of the answers as the interviewer was in the process of writing them down. Since the interview was not recorded there is no data available for how long the interview was being conducted.

Interview four was a video interview conducted through WhatsApp and it took 25 minutes and 43 seconds to conduct. The interview was recorded on the computer and notes were taken at the same time. Due to COVID-19, it was not possible to conduct the

interview face to face. At the beginning of the interview, the interviewee had difficulty understanding the questions since the questions were many and some of the questions were quite long. Because of this the interviewer sent a short summary of what MUD Jeans is, and a document containing all the questions to be asked in the interview through a WhatsApp message, so that the interviewee could be prepared knowing what to answer during the interview.

Interviewee five was a video interview conducted via Zoom and it took 26 minutes and 34 seconds to conduct. Notes were taken as the interview was being recorded. The interviewer used a similar method in interview five as used in interview four; sending the interviewee an introduction of MUD Jeans and the questions to be asked over email in advance, so that the interviewee could be prepared before the interview started creating the possibility to conduct the interview as well as possible. At the same time, the interviewee did his own research on MUD Jeans online. Thanks to the interviewee's cooperation the interview went very smoothly.

*Appendix with interview questions and questionnaire can be found further below.*

### **3.2.4 Survey**

#### **The purpose of a survey**

Conducting qualitative data was a deliberate choice to help with the in-depth-analysis and to form a richer understanding of what customers think about MUD Jeans in particular, but also about circular economy. Gathering qualitative data can be somewhat time-consuming though, and it can be difficult to generalize data from in-depth interviews whose purpose is to provide a deeper understanding of things, when there is no quantitative numbers to help support those findings. This is the reason why we decided to create a survey, quantitative data, formed from the answers found in the interviews. We wanted to see if a larger population agreed with the opinions of the interviewees.

### **Survey information**

The survey questions were created so to test themes represented in the interviews on a larger audience. 11 men and 30 women contribute to answering the questions made in the survey. The larger majority, 28 people, belonged to the youngest age group: 18-25. The second-largest presented age group was 25-34 with eight people represented, followed by the age group 35-50 with three respondents and the age group 50-70 with two respondents.

The majority of people participating in this survey was from Sweden. In total there were 29 Swedes who participated. In addition to this three people from Hong Kong, two people from Germany, and two people from the Netherlands participated. We also had one respondent each from the following countries: Iraq, India, Finland, Iran, and the Philippines.

The survey was created with the purpose of testing the opinions and answers put forward in the interviews on a larger amount of people so as to extend the importance of our qualitative data. We decided on asking three mandatory questions: age, gender, and nationality. (On the gender question it was possible to answer “prefer not to say”.) Deciding on not making all questions mandatory came from personal experience of rarely having the energy to fill out a full survey consuming too much of your time. We wanted to avoid losing out on answers from people who only had the time and energy to answer half or less of the survey before leaving it. (A survey with non-mandatory questions allows the recipient to hand in their answers even if some of them are unanswered). In the aftermath there is reason to believe more questions could have been mandatory as we made sure not to make the survey too long. The reason not to make the survey too long was the same as the reason to make some questions non- mandatory to answer; to create more willingness to answer the questions in the first place.

The survey received 27 to 41 replies depending on what question were asked. The closed-end questions received more replies. In order to control the length of the survey we could not test all opinions put forward in the interviews on a larger group of people.

However, there is still value in becoming aware of the different opinions even if they are represented by only one person.

### **3.3 Analytical process**

According to Bryman and Bell (2011, p. 587), “The coding of such materials as interview transcripts has typically entailed writing marginal notes on them and gradually refining those notes into codes”. The first thing that happened in the analytical process was that one of us listened to the recordings of interview one and two and wrote down all the answers. Next step was to conduct interview three which answers could be written down while the interview was taken place, thanks to the patience of the interviewee. After this one of us looked through the survey answers and the interview answers from interview one and two trying to see if any answers or opinions presented themselves more than once therefore creating a theme; meaning a barrier or driver being presented by a number of people. The themes were written down and in the process following one of us organized all the survey answers according to the themes, and then she picked out quotes from interview one through three being good examples for the different themes. Following this diagrams were created so to be able to present the findings in visual form.

After having worked on the diagrams the writing began; presenting all the quotes from the interviews and survey answers in words and not just copy pasting it in using quotation marks and numbers. We began introducing the different findings from the interviews and survey in words and then we presented the evidence using numbers or quotes. Lastly we formulated our own arguments based on the evidence that we presented. One of the last things we did was adding short presentations of the different interviewees. In the end of working through the analysis, finding better formulations and making sure the quotes were presented in line with Lund universities guidelines, we added evidence from interview four and five, presentations for interview four and five, and arguments based on this evidence, as we hadn't used any data from interview four and five up until this point.

### **3.4 Credibility**

We, the authors of this thesis, have been clear when we are presenting our own ideas and reflections, and when we are presenting data or opinions that have been gathered from sources critical picked out online. What you read in this paper are findings gathered objectively. Nothing is written out of thin air, and all personal arguments put forward have been based on some kind of data. Anytime we've put forward an own argument it has been based on either online sources or data that we've gathered through our interview answers and survey answers. When we put forward things based on data represented by a small number people, perhaps even one person making arguments based on this data less significant, that has been made clear throughout our writing. In no way have we presented ideas as something more than it is. For example opinions of one person has been presented as opinions of one person and not as something misleading the reader to believe these opinions are represented by a larger group or that it is backed up scientifically when it isn't.

Two questions asked in the survey was: "Please explain why would you not want to rent jeans? Issues if you "break" them? Hygiene issues? Something else? and Please explain why you would want to rent jeans? Innovative? Solution to throw-away society? Something else?". Quite a few of the answers were established from the suggestions provided in the questions: Issues if you "break" them? Hygiene issues? and Innovative? Solution to throw-away society? Had these suggestions not been provided the answers may have been different or non-existent as it would have forced the survey-takers to think for themselves rather than choose of options already presented to them. Open answered questions such as these were answered in a smaller extent than simple yes-or-no questions. This is what causes the belief that the answers to the open-answered-questions could have been different if suggestions of answers wasn't provided, as open-answers questions requires more effort to answer, and that effort survey takers showed they were not willing to make as the yes-or-no questions had more answers.

### **3.5 Limitations**

When reading this thesis there should be some awareness pointed to the limitations of this thesis. In particular we want to discuss the limitations of the survey and the interview. We conducted only five interviews. Had we gathered findings from more interviews and had some of the interviewee's been less alike to each other we may have gathered a broader spectrum of findings representing a greater variety of opinions and thought processes having created a more explicated and evolved analysis than what it already is now.

Regarding our survey, we received somewhere in between 27 to 41 answers to the questions we asked. Had the sample size been larger we may have made further or different findings than we did. Also, the survey was shared on one of the authors Facebook page which is where we received most of our answers. The limitation of the thesis originates in the fact that the majority of people being Facebook friends with the author who shared the survey have about the same profile. The majority is between 20-30 years old and have all grown up in a rich western country. Had the survey reached another audience we may have gained different answers.

## **4. Empirical analysis**

*To address the second research question, we will present the drivers and barriers of Mud Jean in the circular economy both from consumer and company's perspective in this chapter. The analysis in this thesis is built upon data gathered from internet documents, five interviews, and a survey consisting of nine closed-end questions and five open answered questions. Firstly, we will briefly introduce MUD Jeans; Secondly and thirdly, we will present the drivers and barriers of MUD Jeans in the circular economy from a company's perspective, as well as from a consumer's perspective.*

### **4.1 MUD Jeans**

*In this section you will learn more about MUD Jeans, and the reasons to why leasing is good, both from the perspective of the planet, and the consumer.*

#### **4.1.1 What and who is MUD Jeans?**

According to MUD Jeans (n.d.a), MUD Jeans is a company founded by Bert van Son in 2013. Together with his team they began turning principles of the circular economy into practice and creating MUD Jeans, while at the same time making the effort to exert the fashion industry on an elevated level (MUD Jeans, n.d.a). As presented in MUD Jeans (n.d.a), the purpose of MUD Jeans is to offer good quality and ethical jeans.

MUD Jeans have been aiming to reach a bigger audience and in 2013 they took their ethical responsibility to the next level introducing their leasing system (MUD Jeans, n.d.a). The leasing system promises MUD Jeans to make sure every garment leaving gets brought back to be recycled (MUD Jeans, n.d.a). It also offers free repairs so that the jeans can be used for as long as the customers want, and after one year the consumer can also choose to swap their jeans for another pair (MUD Jeans, n.d.a).

#### **4.1.2 Why leasing for the planet**

When there is a linear economy in which jeans are used and produced the jeans always end up being burned as trash or being thrown away to landfills leading to environmental

pollution, according to MUD Jeans (n.d.b). MUD Jeans (n.d.b) continue stating that with a design of continuity jeans get recycled and instead of ending up being burned or ending up at landfill it is used as a valuable input when creating something new. MUD Jeans (n.d.b) states that they are creating a positive impact when reusing cotton as they reduce waste and water. According to MUD Jeans (n.d.b), the idea of leasing arose from Bert van Son's realization that the most reliable way to recollect their products is to not sell it in the first place. By taking ownership of the raw materials MUD Jeans are making sure that recycling becomes a given (MUD Jeans, n.d.b). Furthermore, MUD Jeans (n.d.b) argue that by leasing you are able to distance yourself from ownership allowing you to experience more flexibility while at the same time enjoying the feeling of owning less.

## **4.2 Drivers and barriers of MUD Jeans from the company's perspective**

*In this section, we will introduce the drivers and barriers of MUD Jeans from a company perspective, and discuss how these barriers are overcome.*

### **4.2.1 Drivers**

*In this section, the following drivers will be presented: aiming to change the fashion industry, sustainable development goals, environmental drivers, economic drivers, an expanding population, toxic for the skin, and ethical production.*

#### **Aiming to change the fashion industry**

Bert van Son is MUD Jeans founder (MUD Jeans, n.d.a). After having worked in the fashion industry for 30 years he had enough insights to how unfair and dirty the industry was more often than not (MUD Jeans, n.d.a). MUD Jeans (n.d.a) states that Bert van Son wanted to make a change after having seen how demanding the life of a factory worker was, and how tough the fashion industry is on nature. In addition, MUD Jeans (n.d.a) presented that it was time to do things differently. They wanted to get rid of the current



linear and wasteful textile system in order to combat climate change and ensure that global warming was kept below 2°C or even below 1.5°C (MUD Jeans, n.d.c).

### **Sustainable development goals**

As presented in MUD Jeans (n.d.c), the Sustainable Development Goals (SDG) are goals aiming to eliminate poverty, reduce inequality, and protect the planet. In response to the Sustainable Development Goals, MUD Jeans works with governments, companies, organizations and individuals around the world to protect the planet (MUD Jeans, n.d.c).

### **Environmental drivers**

MUD Jeans (n.d.c) presented that their ultimate goal is a world without waste. Firstly, the production and consumption of apparel have doubled in the past 15 years, and the average consumer purchase of apparel has increased by 60% (MUD Jeans, n.d.c). The average garment was only worn seven times before being thrown out, which means that one garbage truck full of textiles was thrown out every second, and almost three-fifths of clothes were incinerated or landfilled within a year of production (MUD Jeans, n.d.c).

The production and distribution of cotton crops have caused many environmental pollution problems, including water, air and soil pollution (MUD Jeans, n.d.c). The first of these is the shortage of fresh water resources since a pair of jeans that meet industry standards consumes up to 8,000 liters of water (nearly 54 full bathtubs) in their production (MUD Jeans, n.d.c). Adding to this, textile dyeing is the second largest polluter of fresh water in the world according to Mud Jeans (MUD Jeans, n.d.c). The world faces a shortage of fresh water, and more than one billion people are living without safe water (MUD Jeans, n.d.c).

Secondly, the total greenhouse gas emissions from textile production is equivalent to 1.2 billion tons of carbon dioxide, which is more than the sum of all international flights and maritime shipping (MUD Jeans, n.d.c). In addition, cotton production accounts for 2.5% of the world's cultivated land, but it accounts for 16% of all pesticides that prevent crop failure (MUD Jeans, n.d.c). Moreover, the unsafe use of agrochemicals can have health effects on field workers and ecosystems, and toxic chemicals related to cotton production can also create polluted rivers for bathing and drinking water, and may even cause serious birth defects in cotton farmers' children (MUD Jeans, n.d.c).

### **Economic drivers**

In apparel production, less than 1% of the materials used to produce apparel are recycled as new apparel, which includes recycling clothing after use and recycling of factory offcuts (MUD Jeans, n.d.c). Experts believe that this may cause an annual economic value loss of over \$500 billion (MUD Jeans, n.d.c).

### **An expanding population**

As presented in MUD Jeans (n.d.c), the rapid development of apparel production has been driven by the rise of fast fashion and the growth of the global middle-class population in the past 15 years. In 2050 there will be 10 billion people on the planet who needs to be fed and dressed (MUD Jeans, n.d.c). Additionally, total clothing sales will reach 160 million tons by 2050 if it continues to grow as expected, more than three times of what it is today (MUD Jeans, n.d.c). This means that 26% of the CO2 emissions are caused by fashion and the fashion industry will be accountable for adding 22 million tons of microfibers to the ocean by 2050 (MUD Jeans, n.d.c).

### **Toxic for the skin**

MUD Jeans (n.d.c) stated that they want to produce natural fabrics which are the most suitable fabrics for human skin. Since clothes are often coated with chemicals that may have a significant impact on human health, and the chemicals in the clothes that we wear also enter the body through the skin (MUD Jeans, n.d.c), so natural fabrics would be a good way of avoiding this toxicity.

### **Ethical production**

According to MUD Jeans's themselves one of the most important goal they have is to ensure that they are giving their factories the same thing as the factory owners are: fair wages, transparency, and good working conditions (MUD Jeans, 2019).

By finding it important to value all colleagues across the supply chain MUD Jeans are taking steps to produce ethically, according to MUD Jeans (2019). MUD Jeans have decided to give their factory workers a fair wage so that they can contribute to their factory workers living an enriched life, according to MUD Jeans (2019). MUD Jeans (2019) also states that they believe that with a good working environment they can create happiness and increase overall motivation and productivity through nurturing both mental and physical health.

## **4.2.2 Barriers and overcoming barriers**

*With a company perspective the barriers we were able to identify through online sources are the following: technical barriers, VAT rules, and financial barriers. We are also presenting information on how MUD Jeans work to overcome these barriers.*

### **Technical barriers**

As stated in the document Circular Economy (2016), a pair of classic denim jeans all contain standard fiber types, universal colors and consistent product specifications, thus

giving them the potential for closed loops. However, when each pair is sent for recycling, up to 35% of the product will be discarded if the hardware-heavy waist is separated from the pant legs (Circular Economy 2016). Most waists with rivets, buttons and zippers are incinerated or recycled to make materials for car roof insulation (Circular Economy 2016). Dyestuffs, elastic, sutures, stitching, pocket lining, and care labels can all complicate and contaminate the recycling process (Circular Economy 2016). With this in mind, MUD Jeans set out to design the ultimate recyclable jeans (Circular Economy 2016).

### **VAT rules**

MUD Jeans are operating a rent-purchasing relationship with their customers, and during the current tax regime this still makes them obliged to pay VAT (value added tax) (Wit et al. 2019). The reason to why MUD Jeans needs to pay VAT on all of their estimated revenues during a rental period is because a rent-purchase is counted as a deferred supply of a good (Wit et al. 2019).

MUD Jeans revenue model is negatively impacted by the VAT rules, and because of this scalability is also negatively affected (Wit et al. 2019). Only 1/12 of the first payment of a pair of jeans is given to MUD Jeans, but still they're obliged to pay the whole VAT on all revenues acquired throughout the subscription period (Wit et al. 2019).

Circular revenue models (CRMs) using leasing, renting, or paying per-use, encourages product owners to keep ownership over their products (Wit et al. 2019). Smaller sized companies who try to build the full spectrum of their business on circular revenue models would need a large proportion of pre-financing every year to ensure their ability to pay VAT (Wit et al. 2019).

### **Financial barriers**

Wijnen & Tiel Groenestege (n.d.) revealed that from the beginning MUD Jeans was unprofitable and the way for them to keep the business alive was through making their

own investments. They also pointed out that MUD Jeans are depending on investments and subsidies (Wijnen & Tiel Groenestege, n.d.). In 2015 MUD Jeans won 50,000 euros as the winner of the Investment Ready Program, which is a unique peer learning programme occurring over a four-month period, according to (Wijnen & Tiel Groenestege, n.d.). They continue explaining that this program offers entrepreneurs the support they need to create their intended impact (Wijnen & Tiel Groenestege, n.d.).

### **4.3 Drivers and barriers to Mud Jeans and circular economy from the consumer's perspective**

*In this chapter, we will present our empirical findings of drivers and barriers of MUD Jeans and circular economy from the perspective of consumers through interviews and survey.*

#### **4.3.1 Drivers**

*Under the section, the drivers are the following: willingness to do good for the environment, interest in trying something new and changing up one's style, tool for coping with weight fluctuations, and price assumptions.*

##### **Willingness to do good for the environment**

In the interviews and surveys, many people expressed concern about the environment. We found that most people are willing to make their own contributions to the environment while consuming.

In our interviews, Interviewee two is a 24 years old student currently finishing up her bachelor studies at Lund University. We asked her if she would like to know the impact of fashion on the environment, she answered:

Yes, I'm aware of fashion's effect on the environment. I've read about and watched reportages/documentaries regarding the clothing industry effect on the

environment. The clothing industry is one of the largest industries in the world, and is also an industry that contributes a lot to environmental pollution.

This quote shows that she has a certain degree of concern for the environmental pollution of the clothing industry. Although this quote did not indicate what kind of efforts she will make, we believe that she will continue to pay attention to environmental issues in the future.

Interviewee one also expressed his views on the environment. When we asked her if she likes the idea of renting clothes, she answered: “It’s expensive and not good for the environment to buy things you only will wear once. Due to this I think renting is a smart option.”

This quote shows that interviewee one is also aware of how purchasing clothing that will be worn only once is bad for the environment, and that due to this renting clothes is in their eyes considered as a smart option.

In the survey, many respondents also expressed concern about the environment. We asked them if they would like to rent jeans and what the reasons are. 10 out of 25 answers in total touched upon the environment or sustainability when explaining their cause to rent jeans.

Our survey-takers left an expression of being environmentally aware. They expressed a willingness to act in manners that had a less profound effect on the environment. These findings show that the environment is a topic that falls close to the heart of many people.

Many of our respondents in the survey express that they would be motivated to rent jeans because they are concerned about the environment. In example they highlight issues of “throw-away society” and “less waste overall” to be important to them. Some also point out the use of less resources such as water and energy, in example this respondent: “Extreme water, CO<sub>2</sub> and energy amounts needed to make a single pair”

We also asked whether the respondents were willing to buy their products after reading the information about MUD Jeans and circular economy in the survey. Many people were interested in renting jeans from Mud Jeans after learning more about them and their impact on the environment. The willingness to do well for the environment is something many of the survey participants were mindful of.

In example, some respondents: “I would buy if I like the style/look. I rather buy/rent from a sustainable company as mud jeans than old fashion/traditional company” and “I like the concept of the circular economy”.

### **Interest in trying something new and changing up one's style**

Some of the answers we received in the survey when asking why people wanted to rent jeans was that it was an opportunity for them to try out new styles. It was also mentioned by at least one person that it be a fun thing to try, as well as a new thing to try. In example, some respondents: “Can try different styles, usually get tired of the ones you have but not if you only rent them for a time” and “I would want to rent to find my size and try new styles”.

### **Tool for coping with weight fluctuations**

Some survey participants expressed that renting clothes could be useful for times when they would experience weight fluctuations. In example, these respondents: “Because then you can have then for a while and the change. My weight fluctuates a lot from year to year so to just have a pair of jeans for 1 year at a time would be optimal.” and “If my size changes often, I don't want to waste money by buying a new pair.”

It's interesting there is such a wide variety of different drivers. Weight fluctuations are not the first thing we would've thought about when trying to think of drivers for MUD Jeans. Still it's an interesting one.

### **Price assumptions - if the renters can save money on the jeans**

We noticed a couple of survey takers assumed that renting a pair of jeans would be

cheaper than purchasing a pair of jeans, as they expressed that they would rent jeans “If it’s cheaper” or for the reason of being able to “frequently change styles for less money”. Knowing the costs of a pair of Mud Jeans jeans we can’t notify price as a Mud Jeans driver as the assumed price isn’t the actual price.

### **4.3.2 Barriers**

*Part of this thesis is finding out barriers and drivers to Mud Jeans, a company adapting the concept of circular economy into their business (Mud Jeans, n.d.a). The Barriers against Mud Jeans that has been found are: no interest in the service of renting jeans, the substitute of second hand, fear of tearing the jeans, hygiene issues, price, unawareness of its existence of MUD Jeans and circular economy, not practical or inconvenient, issues with jeans having a former owner, and green washing.*

#### **No interest in the service of renting jeans**

When asking the question: “Could you see yourself renting a pair of jeans if such a service existed?” 13 people responded yes while 28 people responded no. Again, it’s shown that a service that to many is unfamiliar is something people are reluctant to give a try.

#### **Second Hand**

Our first interviewee was a 23-year-old woman halfway through her bachelor studies in southern Sweden. This woman is aware of the environment and that the production of clothes takes up a lot of water. She is also aware of the fact that fast fashion is not good for the environment. What is interesting is that she is not interested in MUD Jeans as she is already familiar and found of the concept that is second-hand shopping. Interviewee one expresses that there is a substitute for renting jeans from Mud Jeans that is also contributing to damaging the environment less. According to one interviewee, second hand is also an option that falls closer to them.



We provided our interviewees with a number of facts about Mud Jeans and then we asked if this would make them want to buy their product. We also asked them to explain why or why not. This is what interviewee one replied:

It sounds good but I don't think I personally would buy it. I don't feel I have the need for it, but I still think it is a good thing. I don't feel I have the need to have other jeans than the once I already have. And for the environmental aspect I think there are other options that are good for the environment, like second hand, that fall closer to me. Also, buying jeans second hand is more reasonable for me as I don't think it has to cost more than it costs to rent jeans, although I'm not quite sure of what it costs to rent jeans.

This interviewee expressed that there was no need for them to purchase Mud Jeans products for the sake of the environment as the effect of their current purchasing behaviours doesn't have that large of a negative impact on the environment due to the nature of second hand shopping.

The same interviewee continues addressing the concept of a shop stop, a period of time when no shopping at all is done, by saying that they don't feel the need to have a shop stop as most of the things they buy are second hand anyways. We continued asking if interviewee one ever considered or completed a year where they buy no new clothes at all. We received the following reply:

I have not as an active choice decided to buy no clothes at all over a year. I have never been a big shopper, so I don't see I've have the need to do so. Also, most of the things I buy are second hand which don't have a great impact on the environment, so I don't feel I need to have a shop stop.

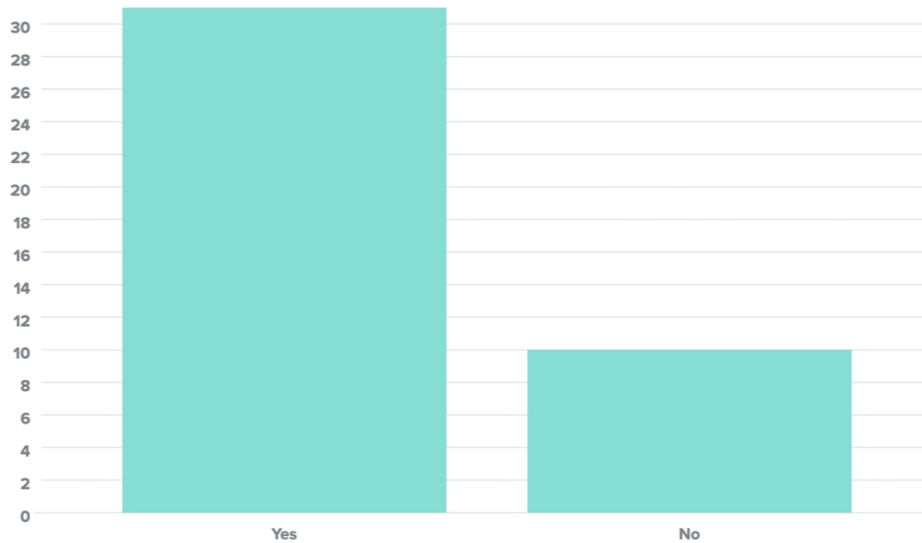
Knowing this consumer did not feel the need to purchase products from MUD Jeans due to environmental reasons as they had second-hand shopping available to them we got interested in finding out more to why this interviewee chose to shop second hand.

Interviewee one said that it was “more fun” and that it was possible to “find a greater variety of clothes”. The same interviewee continued stating that it also “feels good for one’s conscious to buy second hand, and not buy new clothes, as it is better for the environment”.

Our first interviewee explained that the second hand is more fun and that you can find a greater variety of clothes. It’s an interesting growing insight into the fact that a product that is environmentally friendly isn’t always enough to win a consumer over, as there are existing products that aren’t only good for the environment but who are also fun and comes with a greater variety: second hand products.

In the survey, to the question “Do you think second hand shopping of jeans is a better option in regards of taking care of the environment compared to renting jeans?” 10 people answered no while 31 people answered yes. We would argue that the fact that about 75% of the answers agreed to shop second hand is a better option than renting jeans has to do with the fact that renting clothes is still a foreign concept to many, and that people are more comfortable consuming things in a way they’ve done before: through second hand.

## Do you think second hand shopping of jeans is a better option in regards of taking care of the environment compared to renting jeans?



*A diagram showing how many thinks and do not think that secondhand shopping of jeans is a better option than renting jeans in regard to the environment.*

### **Fear of tearing the jeans**

A third barrier is brought forward from one of our interviewees who don't want to rent jeans as they feel they need to be more careful in the usage of a pair of jeans they don't own 100%. Interviewee three was also a 24-year-old as interviewee two. Compared to the previous interviewees her highest level of education was a high school degree. We asked interviewee three if she liked the idea of renting clothes while examining what determined her interest or disinterest in renting clothes.

I think the idea of renting clothes is smart for those who aren't able to buy expensive clothes such as a suit or a wedding dress that would be needed on a special day. Personally, I would not want to rent clothes that have a tighter fit such as jeans or bathing suits as I would find that unsanitary, and I wouldn't be able to relax being afraid to tear the clothes. When you rent it's not your own, and it would just be troublesome thinking about insurance and warranty etc. I think renting clothes sounds easier than it is if you actually think of all the

factors needed to make it possible to create such a renting service.

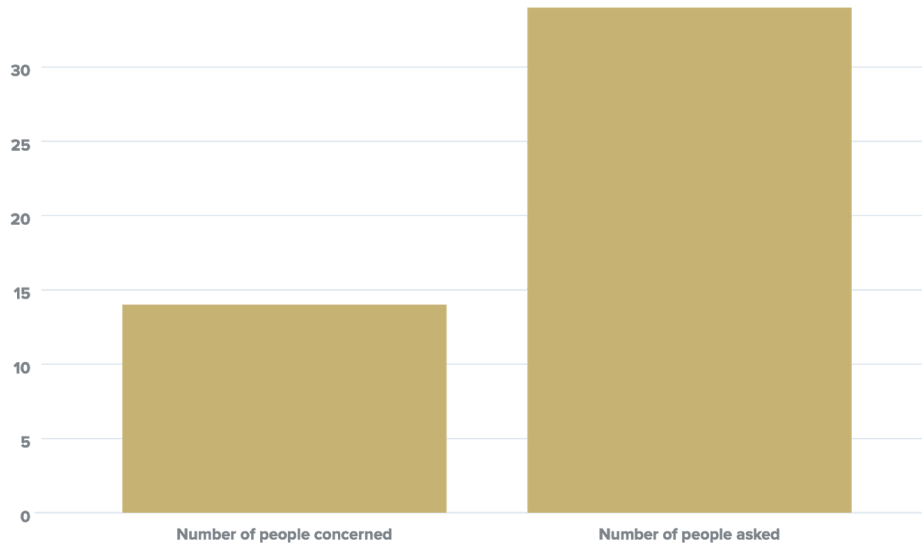
Interviewee three explains that the idea of renting clothes is smart in regard to more expensive clothes, such as a wedding dress, that you tend to wear only once. The disinterest in renting is created by jeans being a garment that has a tighter fit, which the interviewee finds unsanitary, and she wouldn't feel comfortable wearing it as she'd be scared to tear the jeans. She continues expressing that it be troublesome to think about insurance or warranty etc. and that renting clothes probably sounds easier than it really is.

One of our survey participants said that they usually wore their jeans "... until completely worn down after many years". The thought of somehow "... breaking or wearing them down" is an opinion brought forward to a large extent in the survey when asking the question "Please explain why would you not want to rent jeans? Issues if you "break" them? Hygiene issues? Something else?". 14 out of 34 expressed concern regarding breaking, tearing, or soiling the pants somehow. Some expressed their concerns by asking will there be a "Problem if I break them?" or "What if I tear it or soil it". Interviewee one stated the following:

I have a greater incentive to buy jeans (a piece of clothing I use more often) than I have with gala gowns, since it be troublesome if they were to break. Since I'm using the jeans more (compared to the gala gown) the risk of the jeans breaking are higher.

Since jeans are a nondurable good, they are consumed faster and the odds of them breaking sooner are higher. This is reason for interviewee one to buy jeans instead of renting them. So, can we conclude that there is an interest in renting goods that are durable? Yes, according to interviewee two they "like the idea of renting clothes. Especially clothes that you only need for one event. Like pants or clothes, you won't wear again.". Interviewee one had similar thoughts: "I would rent gala gowns as it is a piece of garment you only use once."

## Bar chart showing number of people concerned regarding breaking, tearing, or soiling pants that are being rented



*A bar chart showing the number of people concerned regarding breaking, tearing, or soiling pants that are being rented.*

### Hygiene issues

Another barrier against Mud Jeans is expressed through one of our interviewees who finds it unsanitary to rent clothing that has a tighter fit. Interviewee three was a 24-year-old woman whose main occupation is working. Her highest level of education is a high school degree. She says she has a good understanding of fashion's effect on the environment but that she's a bit nonchalant so she doesn't do anything with that knowledge. When interviewee three was asked if they liked the idea of renting clothes, and what is was that caused her interest or disinterest she said that she personally "... would not want to rent clothes that have a tighter fit" stating that renting clothes such as jeans or bathing suits would be "unsanitary". She also continued explaining that she "... wouldn't be able to relax being afraid to tear the clothes."

The issue of renting jeans being unsanitary was a widely represented opinion through the survey. 12 out of 34 stated hygiene as a cause to not want to rent jeans. One of the survey participators also expressed that "the thought of renting clothes, in general, feels

wrong/weird and unsatisfying”.

The opinion of jeans rentals being unsanitary was also represented in the interviews. Interviewee four replied about renting clothes, he pointed out: “I would not consider renting clothes from since I think of a hygiene problem, but I would like to exchange clothes with my brothers.” Another interviewee, interviewee five also expressed his views on renting clothes, he explained: “I never buy clothes in a second-hand store or rent clothes from somewhere, because I think it will be unsanitary. I always buy new clothes.”

From the responses of interviewee four and interviewee five, they do not like the idea of renting clothes because they think hygiene is a very important factor for them. They are more willing to spend more money to buy some new clothes or exchange with relatives.

When asking survey participants the reasons why they would not want to rent jeans, 12 out of 34 stated hygiene as a cause to not want to rent jeans. In example, some of the answers received in the survey are: “I would rather have my own pair that I can wear over and over again. hygiene issue is a key reason too”, and “Hygiene, jeans don’t break or go out of style that fast so economically it would not be worth it”.

After having interpreted the answers we received in the survey we can conclude that the majority of the survey takers found hygiene issues in the service of renting jeans. This is surprising as many talks well about second hand, which isn’t that different from renting jeans in regards to hygiene issues; both have been used by other people before.

### **Price**

Another barrier for consuming Mud Jeans is the price. The cost of renting a pair of jeans from Mud Jeans for a year would consist of a one-off 29€ subscription fee and then a monthly fee of 7,50€ paid for 12 months, which is more than our interviewees stated they would be willing to pay (Mud Jeans, n.d.d)

We noticed a couple of survey takers assumed that renting a pair of jeans would be

cheaper than purchasing a pair of jeans, as they expressed that they would rent jeans “If it’s cheaper” or for the reason of being able to “frequently change styles for less money”. Many survey takers assumed that renting jeans would be less costly than buying a new pair of jeans. An average pair of jeans from H&M cost about 300 kronor (H&M, n.d.). Knowing the cost of a pair of MUD Jeans is €119.00 (MUD Jeans, n.d.e), we can state that the assumed price and the thought of being able to save money on a rented pair of jeans is a barrier, as the assumed price is not equal to the actual price. Because the actual price of renting a pair of MUD Jeans is higher than what your average pair of jeans cost the opportunity of saving money renting instead of purchasing is a driver that simply doesn’t exist.

When asking how much an interviewee would be willing to pay for a one-year rental off a Mud Jeans pair of jeans interviewee three explains that they would not pay more than 500 kronor. We asked the same question to interviewee one and the answer was as following:

I could see myself pay 200-300 kronor for a pair of jeans from Mud Jeans if it’s a non-recurrent charge that would allow me to rent the pair for as long as I want. To rent a pair of jeans for a year I would pay no more than 300 kronors. The amount I would pay for a pair of rented jeans depends on how much I want the jeans.

Interviewee one explains that they would not pay more than 300 kronor for a pair of jeans that they will rent for a year. They also state that the amount they are willing to pay can be depended upon how much they want the jeans. In the beginning of their answer they say that they would not pay more than 200-300 kronor for a pair of jeans they’re allowed to rent for as long as they want, and if the charge is non-recurrent. Interviewee one is an example of how the amount one is willing to pay for a pair of jeans is depended upon how much the consumer want to consume the particular jeans in mind.

Price is a barrier found in all our interviewees. None of the interviewees are willing to pay the amount that MUD Jeans are charging their customers for a pair of jeans. According MUD Jeans' official website, a pair of jeans costs 119€ (MUD Jeans, n.d.e). Interviewee two for example says they “would obviously not pay as much for a pair of jeans that are rented” as they would pay for a pair that are completely new. So, we can conclude from interview two that a pair of jeans that aren't new puts a limit for how much a consumer is willing to pay. Interviewee two continues stating that if they rented a pair of jeans, they “would pay about 200 kronor.”

One person from the survey, when asked why people would not want to rent jeans, responded answering “price”, so we can say price was represented as a barrier in the survey as well.

Interviewee four and interviewee five also expressed the same point of view. Interviewee four is a 36-year-old man from Pakistan who lives in Sweden with his family. His highest level of education is a Master's degree. He said: “I know their ideas are good for the environment and also good for the customers, but my budget for a pair of jeans is from 300 kronor to 600 kronor”. From Interview four's response we can see that he agreed with MUD Jeans' contribution to the environment, but the price of their jeans far exceeded his budget, so he did not intend to buy their jeans.

Interviewee five is a 30-year-old doctor from Iraq who lives in Sweden and he would not buy a pair of jeans from MUD Jeans either. He explained: “I have checked their website. I would not like to buy their jeans because their prices are too high, it costs 119€ for one pair of jeans, and they don't have many options either. I am only willing to pay half of their price to buy a pair of new jeans.” Obviously, the interviewee 5 has his own unique views on buying jeans. During the interview, we learned that price, design and quality make him a very critical factor in buying jeans. Therefore, he would not consider to buy jeans from MUD Jeans.

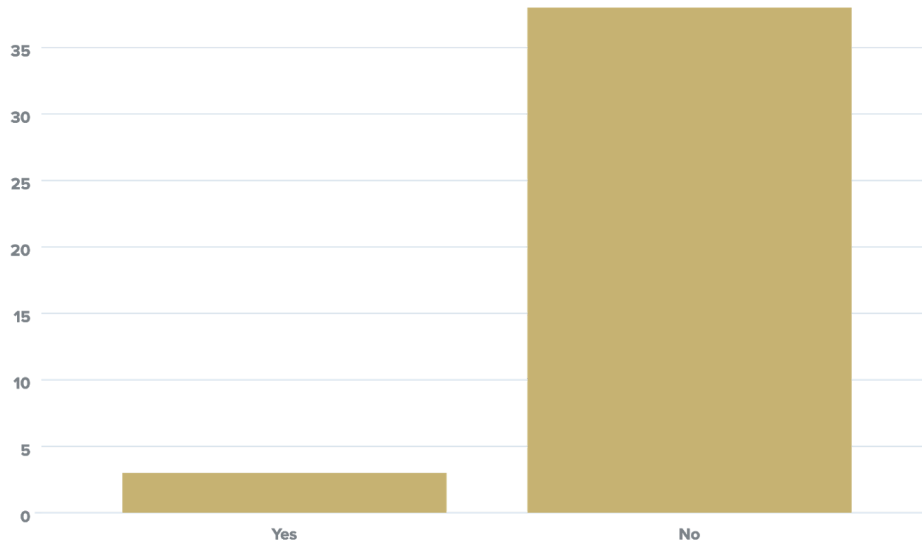
### **Unawareness of the existence of MUD Jeans and circular economy**

MUD Jeans is a company that is branding themselves as being a circular economy



business (European Union, 2019). The trouble of this is that quite few are aware of what circular economy is and the benefits of it. Out of the 41 respondents in the survey only three had heard about Mud Jeans before. This is a strong indicator that the biggest barrier to Mud Jeans is most likely potential customer's unawareness of its existence.

### Have you ever heard about Mud Jeans?



*A staple diagram showing that the majority of the 41 survey respondents have not heard about Mud Jeans before.*

Interviewee one states that their shopping habits would change if they gained more awareness and knowledge of what the fashion industry looks like. This gives us reason to believe that if more people were aware of MUD Jeans existence more people would consume MUD Jeans products. According to the survey, 70.7% of all who answered the question (41 people) stated they think their shopping habits would change if they got more knowledge of what the fashion industry looked like. Because of this large percentage, and the fact that according to the survey only 7.3% of the survey participators are aware of MUD Jeans existence, and the fact that interviewee one stated that their shopping habits would change if they gained more awareness and knowledge of what the fashion industry looks like, we would conclude that unawareness of MUD Jeans existence is a large barrier.

According to the survey, 12 out of 40 had not heard about the concept of circular economy before. It may not add up to as large of a percentage as the number of people who are unaware of MUD Jeans existence, but still it's more than 25% of all survey takers whose consumption behavior will be unaffected of MUD Jeans effort of branding themselves as a circular economy business. So, had more people known about MUD Jeans, their current marketing would have had a greater impact.

### **Not practical or inconvenient**

As we conducted our interviews we wanted to find out if the idea of renting clothes was of interest or not to our interviewees, and why they thought the way they did. Interviewee three said that:

When you rent it's not your own, and it would just be troublesome thinking about insurance and warranty etc. I think renting clothes sounds easier than it is if you actually think of all the factors needed to make it possible to create such a renting service.

Interviewee three found the clothing renting service troublesome in regard to the possibility of breaking something you haven't fully ownership over. She also continues arguing for that such a service sounds easier to create than it actually is when you consider all the factors needed for such a service creation.

Similar opinions were expressed in the survey when asked why consumers would not want to rent jeans. One of our survey participators said that is not as if they have to wear a pair of jeans for one day only "so renting isn't practical" for them either. In addition to this, they also stated that they would rather buy a cheap pair of jeans than rent a pair. They also said they had "... Never considered the idea." of renting jeans.

It was mentioned three times in the survey that it would be an issue having to remember when to return the jeans. This kind of un-practicality is one reason why people aren't interested in MUD Jeans products. One person expressed that it could be "struggle some

to keep an eye on the return date” while another said they would “... rather buy second hand and own them” to avoid the need to remember to hand them back.

### **Issues with jeans having a former owner**

Looking through the survey we found that people felt troubled by the fact that the jeans they were renting had a former owner. One person said that they were pro the concept but they couldn't picture how it would work. Their point was that “jeans tend to shape itself based on your body so a rented pair would be shaped by someone else, right?”. Another person expressed unwillingness to rent a used pair of jeans while a third one said they imagined “the pair would be quite worn”. A fourth person stated they wanted jeans that are “brand new so I know that I can have them for a long time”.

### **Green washing**

Two people mentioned greenwashing while expressing reluctance to purchase jeans from Mud Jeans. We provided a number of facts about MUD Jeans in the survey and asked if this interested the survey takers more. Two survey takers mentioned greenwashing as a problem. In example, the first one said: “Nothing in that text really made me want a pair. I've studied sustainability and to me it seemed greenwash-esque. Plus, if the rent for a pair is 10€ per month it would be 120€ per year and that seems a bit expensive.” and the other one said that it be “Too expensive” while expressing they couldn't know if it was greenwashing or not. They said that it is “Too hard for consumer to control” and that it be better to simply buy second hand. We can conclude from the survey that some find MUD Jeans being too good to be true and therefore either label them as green washers or questions if they are green washers.

## 5. Discussion

*This section serves to answer our research questions with the help of our empirical findings. The answers will be related to our theoretical framework.*

Our findings have shown that one of the main drivers for MUD Jeans is the environmental driver to adopt a circular business model. Because of the serious environmental pollution caused by the fashion industry, and the shortage of resources facing the expanding population, MUD Jeans wants to get rid of the current linear and wasteful textile system and make efforts to deal with climate change (MUD Jeans, n.d.c). This is in line with the theory; environmental and resource-related risk drivers are the main drivers for companies to adopt circular business model. As related by Gusmerotti et al. (2019), the use of a circular business model can produce environmental benefits and natural resources in reducing raw materials, as well as waste prevention and minimization. At the same time, throughout our empirical findings, our interviews and survey have shown that the environmental driver is also the main driver for consumers to buy products from MUD Jeans and support the circular economic business concept, because they are willing to make efforts for environmental issues.

Our findings have given empirical evidence showing that one of the drivers to MUD Jeans is to respond to Sustainable Development Goals. This is in line with the theoretical suggestions made by Gusmerotti et al. (2019), environmental regulations and a series of circular economy strategies promulgated by the European Union that will exert compulsory pressure on companies.

In addition, our findings also show that that the economic driver is one of the drivers to MUD Jeans using a circular business model. This is because less than 1% of the materials used to produce clothing are recycled as new clothing in the apparel production, which causes an economic value loss of over \$500 billion per year (MUD Jeans, n.d.c). This is explained by Gusmerotti et al. (2019), the circular economy is based on the concept of resource efficiency, that is, less money and more output, so it can save money by reducing costs.

Although we have found some similar drivers from empirical findings, there are still many drivers that are not mentioned by the company and that are not specified in the theory. For example, Mud Jeans wants to produce natural fabrics which are the most suitable fabrics for human skin (MUD Jeans, n.d.c) and provide good working conditions for workers (MUD Jeans, 2019). Meanwhile, throughout the survey results, we have found that one of the drivers for consumers to buy MUD Jeans products is to try new styles, and one of the reasons why they want to rent jeans from MUD Jeans is to deal with weight fluctuations.

Moreover, the findings have given empirical evidence showing that the financial barriers is one important barrier for MUD Jeans. According to Wijnen & Tiel Groenestege (n.d.), MUD Jeans was unprofitable from the beginning and the way for them to keep the business alive was through making their own investments. This is partly explained by Rizos, et al. (2016), the lack of capital has become one of the most significant barriers for SMEs to adopt circular economy strategies and SMEs often faces difficulties in obtaining the guarantees required by banks.

The lack of technical and technological know-how is another barrier to SMEs according to Rizos et al. (2016), they claim that to change business-as-usual operations, new sustainable production and consumption technologies need to be integrated into the current linear business model. The empirical evidence shows that MUD Jeans have also encountered technical difficulties in the process of recycling jeans, and they are finding their way to design the ultimate pair of recyclable jeans (Circular Economy 2016).

Furthermore, another interesting finding from both our interviews and survey is that most people have not heard about MUD Jeans or circular economy. This indicates that insufficient understanding of the circular economy has become one of the barriers to the promotion of circular business models. This is in line with the theoretical suggestions made by Rizos et al. (2016), customers insufficient understanding of the benefits of green products does not promote changes in consumption patterns.

Although the circular business model is an innovative method that can address the issues of linear economy as theorized in the theory, and while MUD Jeans wants to do something good for the fashion industry and for the world, the empirical evidence shows that there are many practical barriers that are not mentioned by the theory, or by MUD Jeans. For instance, consumers are more concerned about price and hygiene issues, and they think that renting jeans is inconvenient which creates a disinterest of the service.

We wonder if our findings regarding the drivers and barriers of the circular economy could be applicable to other clothing brands such as H&M, Lindex, and Gina Tricot. Knowing sustainability have been a heavily discussed topic when asking why consumers would be interested in renting jeans from MUD Jeans, perhaps fast fashion chains will see opportunities in using more circular business models or making their supply chain more sustainable in the future.

## 6. Conclusion

*Here you will be able to read about conclusions drawn from our empirical findings, as well as suggestions for future research.*

Due to the serious environmental pollution caused by the fashion industry, the circular business model has become a method for solving the linear issues adopted by many companies. Although the circular economy seems to be a good choice, we still know very little about the drivers and barriers of the circular economy. Therefore, the purpose of this thesis is to learn more and gain a deeper understanding about the drivers and barriers of circular economy from a consumer and company perspective.

Our empirical findings indicate that one of the most important drivers, from a company and consumer perspective, for circular economy is the desire to make your own efforts to relieve current environmental issues. Our findings also show that economic and regulatory drivers are the main drivers for companies to adopt a circular business model. In addition, the findings of MUD Jeans show that financial burden and technical issues are the main barriers for MUD Jeans. Meanwhile, unawareness of MUD Jeans existence and lack of knowledge regarding what circular economy is, has created a barrier to circular economy, that presented itself through our survey and interviewees. These drivers and barriers are all mentioned in the theories.

Our findings indicate that there are many drivers and barriers that were not specified in theory. For example, one of MUD Jeans drivers is to provide workers with good working conditions so to make sure their production is ethical. From a consumer perspective, our conducted interviews and survey indicate that there is a desire to try out new styles with a renting service such as MUD Jeans. This type of service also offers consumers a way to cope with weight fluctuations as you can change the jeans you are renting to a different pair with a different size whenever your weight changes. The empirical findings also show that consumers are reluctant to accept MUD Jeans circular products as they are concerned with prices, and hygiene problems arising from renting clothes. Consumers

also state that they are not interested in renting jeans because they fear they might tear the jeans, and the service is perceived as inconvenient.

Although our findings have shown that there are more barriers than drivers existing to circular economy, we still would like to believe and hope that more companies in the future will adapt circular business models in an effort to do well for the environment. Perhaps we will come to see that certain drivers, such as the will of doing good for the environment, are stronger than its opposing barriers. For example, barriers such as hygiene issues can be broken down if the reality of MUD Jeans products are shared; their jeans are not found in landfill; they are shipped by old customers to be made a new in factories where workers are working for an ethical wage. We believe in the good over the bad; so hopefully we will see drivers, and not barriers, steering the fashion industry to a better place in the future.

### **Future research**

MUD Jeans prioritize spending more money on their factory workers, compared to clothing chains such as H&M, to make sure the production is ethical. Spending more money on factory workers increases the costs which naturally force MUD Jeans to take out a higher price for their products than the average consumer is used to pay purchasing jeans at stores such as H&M. If Mud Jeans were to reduce the ethical standards in their production, they would have less production costs meaning they would be able to take out a lower price. Knowing that price has been a consumer barrier a lower price would increase the number of MUD Jeans consumers. When consumers are switching to consuming MUD Jeans, which has a better effect on the environment compared to fast fashion jeans such as those from H&M, the new question revealing itself is: where is the ultimate balance in compensating ethical production with an increase of consumers purchasing a product that is more ethical and better for the environment?

According to our research, there are not many studies on the drivers and barriers of circular economy. This is not only reflected in the fashion industry, but also in other



fields, such as food industry, high-tech industry, and packaging industry, etc. We believe that future research could also adopt similar approach to study the drivers of companies and consumers, because our research results show that consumer drivers are more subtle and unexpected.

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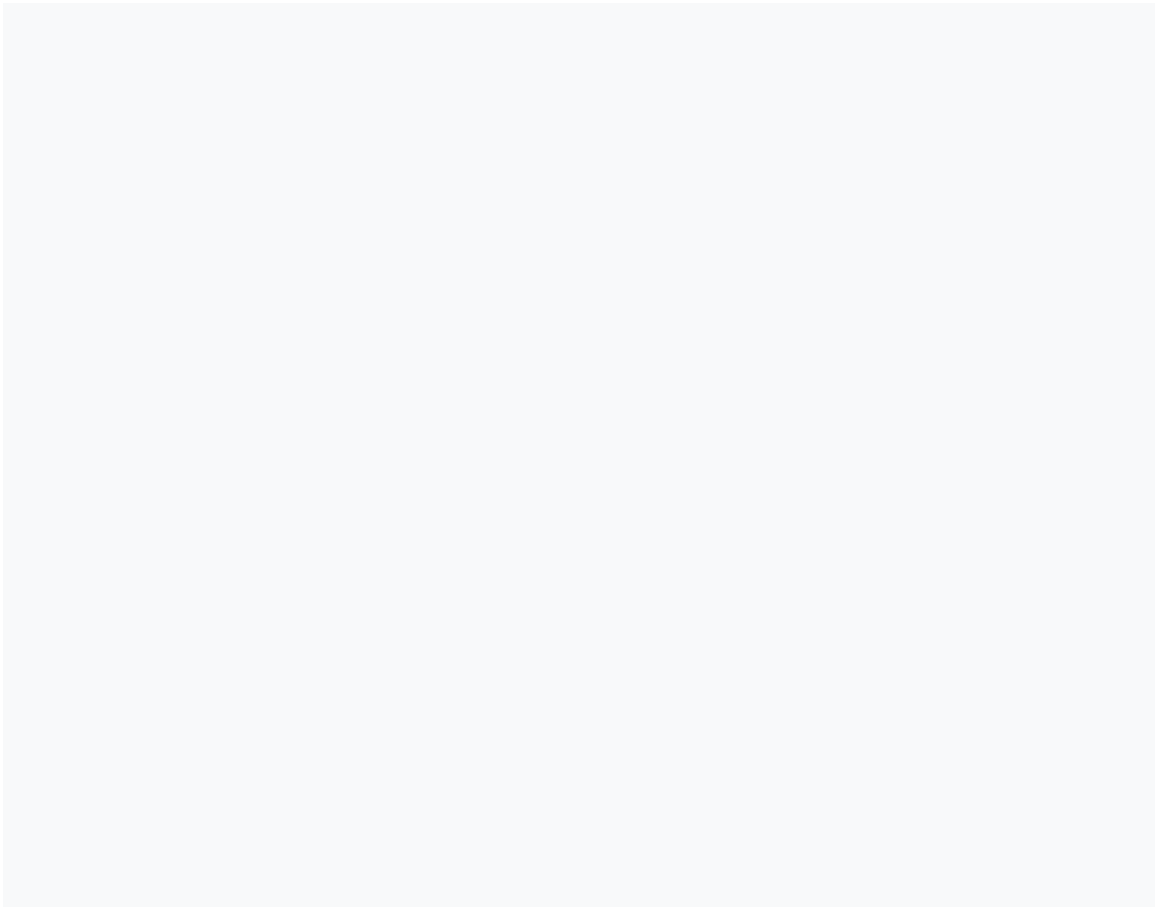
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# Appendix

## Interview questions

### Background questions:

How old are you?

Are you a man, a woman, or do not want to specify?

Highest level of education?

### Questions about awareness about fashion's impact on the environment:

Would you say you are aware of the making of fashion's effect on the environment?

Do you have people in your family, friend group or closest surrounding people (like colleagues) who shop with awareness of the environment?

Do you wish you had a better understanding of fashion's impact on the environment?

Do you know what elastane is? If I mention it is a “ämne” used to make jeans elastic; do you know of its effect on the environment? If yes, in what way or to what extent does it affect the environment?

Where do you get the most information regarding fashion's impact on the environment? Social media, news papers, non profit organizations, or from people you know?

### Questions about consumption behaviours:

Are your consumption patterns regarding fashion affected by what you know of its impact on the environment? Like do you shop less or not from certain stores because of your knowledge of its impact on the environment.

What is your favorite shop to get clothes at? WHY do you shop there?

Will you pay a greater sum of money if the garment will last longer?



Do you have a limit of how much money you are allowed to spend on new clothes (including second hand) over a year?

How often do you buy a new pair of jeans?

What are your top 3 most NEWLY bought clothing pieces?

Are there certain clothes you would never buy second hand? If yes, which?

Have you ever considered or completed a year where you buy NO NEW clothes at all?

Are there certain clothes that you would never buy new; meaning you would always search for these clothes at a second hand store?

What would make you shop differently? Like what is a thing that you think could have an enough strong impact on you what would make you change your consumption behaviours? More knowledge on fashion's impact on the environment perhaps?

**Questions related to the idea of renting clothes:**

Could you see yourself renting jeans?

Do you like the idea of renting clothes? What causes your interest or disinterest?

If liking the idea of renting, what motivates you to rent jeans?

If not liking the idea of renting: Is their products you could think of renting?

Why would you rent these products and not jeans?

**Questions about the circular economy:**

Have you ever heard about the Circular Economy? If yes, what do you think of when I say "Circular Economy"?

**Follow up questions used throughout the interviews:**

Why second hand?

Why do you think Mud Jeans concept is "smart"?

**Questions related to Mud Jeans:**

Have you ever heard about Mud Jeans? If yes, what is your understanding of its purpose, like what is their business idea/what are they trying to achieve?

If price is a cause for you to not buy Mud Jeans product; how much would you be willing to pay for a pair of Mud Jeans?

28. Knowing more about Mud Jeans (presenting facts about Mud Jeans\*, see below\*), would you want to buy their product? Why or why not?

**Facts about Mud Jeans shared in question 28:**

Using a holistic approach where no plants, animals or people are hurt during the production of Mud Jeans,

Also, jeans consist of recycled material and organic cotton, and instead of using leather patches they use printed labels

Repair Service; to make customers love and use their jeans for longer Mud Jeans offers free repairs during the leasing period

regardless of what brand all jeans (made of 96% or more cotton) can be handed in giving a €10 discount on a purchase, or one month of leasing for free

Mud Jeans exists to adapt the beautiful concept of a circular economy, where we can move forward with producing darling things without destroying the earth.

The jeans them self contain between 23% and 40% of recycled denim from former customers.

## Survey

A survey with questions based of the answers found in the interviews was constructed with \_\_\_ yes or no questions, and \_\_\_ open answers questions. On the yes or no questions we received \_\_\_- \_\_\_ answers, and on the open answers questions we received \_- \_ questions per question. To make the most out of this survey we will present the qualitative data gathered question by question.

### Yes or No - questions:

Answers given: \_\_\_ Gender: \_\_\_ female, \_\_\_ male

Answers given: \_\_\_ Age: Four age groups were represented; 18-25 \_\_\_, 25-34 \_\_\_, 35-50 \_\_\_, and 50-70 \_\_\_

Answers given: \_\_\_ Nationalities represented: Swedish \_\_\_, German \_\_\_, Dutch \_\_\_, Finnish \_\_\_, Iraqi \_\_\_, Iranian \_\_\_, Hong Kong, and

Answers given: \_\_\_ Have you ever heard about Mud Jeans?: Yes \_\_\_, No \_\_\_

Answers given: \_\_\_ How much would you pay for a pair of new jeans?: 50-200 kr \_\_\_, 250-400 kr \_\_\_, 450-600 kr \_\_\_, 650-800 kr \_\_\_, 850-1000 kr \_\_\_, Above 1 000 kr \_\_\_

Answers given: \_\_\_ How much would you pay for renting a pair of jeans for 1 year?: 50-200 kr \_\_\_, 250-400 kr \_\_\_, 450-600 kr \_\_\_, 650-800 kr \_\_\_, 850-1000 kr \_\_\_, Above 1 000 kr \_\_\_

Answers given: \_\_\_ Could you see yourself renting a pair of jeans if such a service existed?: Yes \_\_\_, No \_\_\_

Answers given: \_\_\_ Do you think second hand shopping of jeans is a better option in regards of taking care of the environment compared to renting jeans?: Yes \_\_\_, No \_\_\_

Answers given: \_\_\_ Have you heard of the concept Circular Economy?: Yes \_\_, No \_\_\_

Answers given: \_\_\_ Do you think your shopping habits would change if you got more knowledge of what the fashion industry look like? : Yes \_\_, No \_\_\_

**Open answers questions:**

Answers given: \_\_\_ Nationalities represented: Swedish \_\_, German \_\_, Dutch \_\_, Finnish \_\_, Iraqi \_\_, Iranian \_\_, Hong Kong, and

Please explain why would you NOT want to rent jeans? Issues if you “break” them? Hygiene issues? Something else?

Please explain why you WOULD want to rent jeans? Innovative? Solution to throw-away society? Something else?

Based on the below description (you don't have to read the whole thing to answer). If you wanna purchase jeans from Mud Jeans, WHAT makes you wanna purchase jeans from Mud Jeans? If you DON'T want to purchase jeans from Mud Jeans, WHAT makes you NOT wanna purchase jeans from Mud Jeans?

What do you think of when you hear “Circular Economy?”