

Sustainable business models in the fashion industry: balancing the tension between sustainability and profitability

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Abstract - English

Title: Sustainable business models in the fashion industry: balancing the tension between sustainability and profitability

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Keywords: sustainability, sustainable business models, triple layered business model canvas, born-sustainable businesses, fashion industry

As born-sustainable companies are a relatively young phenomenon, academic research on this topic is limited. Drawing from the Triple Layered Business Model Canvas, this research aims to understand how born-sustainable companies in the fashion industry can implement a sustainable business model. Since the fashion industry is one of the most polluting business sectors globally, the results are of great interest to academia, entrepreneurs, and fashion industry incumbents.

To answer the research question, I conducted a multiple case study on three born-sustainable companies: Refished, Maezen, RubyMoon. Three companies that build on different layers of sustainability and tackle different societal and environmental issues.

The findings of the study demonstrate that sustainable business models create and deliver a sustainable value proposition to a conscious customer segment. Further, it is critical to align the values along the supply and value chain. In a sustainable business model, one cannot work with unsustainable partners or partners who do not share the same values. Circular business models are one way to implement sustainability, but a linear business model can also be designed as a sustainable business model. Inevitable trade-offs must be made along the value creation, value delivery, and value capture. One trade-off is the potential social exclusion resulting from charging premium prices to customers, as sustainably made fashion results in increased costs. Ultimately, to successfully implement a sustainable business model, the revenues have to outweigh the costs, and the derived environmental and social benefits have to outweigh potential adverse impacts.

Abstract - Portuguese

Título: Modelos empresariais sustentáveis na indústria da moda: equilibrar a tensão entre sustentabilidade e rentabilidade

Autor: Christoph Emanuel Ebner

Palavras-chave: sustentabilidade, modelos de negócios sustentáveis, Triple Layered Business Model Canvas, negócios de origem sustentável, indústria da moda.

Como as empresas nascidas-sustentáveis são um fenómeno relativamente jovem, a investigação académica sobre este tema é limitada. Resultante de um “Triple Layered Business Model Canvas”, esta investigação visa compreender como os modelos empresariais sustentáveis podem ser implementados na indústria da moda. Uma vez que a indústria da moda é um dos sectores empresariais mais poluentes do mundo, os resultados são de grande interesse para o meio académico, empresarial, e operadores da indústria da moda.

Para responder à questão da investigação, realizei um estudo de caso múltiplo em três empresas nascidas-sustentáveis: Refished, Maezen, RubyMoon. Três empresas que se baseiam em diferentes níveis de sustentabilidade e abordam diferentes problema social e ambiental.

Os resultados demonstram que modelos de negócio sustentáveis criam e entregam uma proposta de valor sustentável a um segmento consciente do cliente. Além disso, é fundamental alinhar os valores ao longo da cadeia de distribuição e de valor. Modelos de negócio circulares são uma forma de implementar a sustentabilidade, porém, um modelo de negócio linear pode também ser concebido como um modelo de negócio sustentável. Devem ser feitos compromissos inevitáveis ao longo ao longo do modelo de negócio. Um compromisso é a potencial exclusão social resultante da cobrança de preços “premium” aos clientes, uma vez que a moda feita de forma sustentável resulta em custos acrescidos. Em última análise, para implementar com sucesso um modelo empresarial sustentável, as receitas têm de compensar os custos, e os benefícios ambientais e sociais derivados têm de compensar os potenciais impactos adversos.

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This thesis marks not only the end of my studies but also the end of my time in Lisbon and Portugal. The past months have been full of joy, sunshine, and living life to the fullest. However, life does not just consist of ups. This journey was also a rollercoaster, with all the associated downs. I am beyond thankful for everything I was able to experience, the good and the bad. I am not only leaving with new academic knowledge but was also able to learn a lot about myself in addition to making great new friends.

To my supervisor Laure, for her support and guidance throughout this process. Thank you for your valuable feedback and your assistance.

To all the beautiful people I met along this journey. Thank you for always cheering me up. To all my friends and loved ones at home, thank you for having my back and supporting me, no matter the distance.

To my family. Thank you for letting me fulfill my dreams and for always supporting my educational path. Thank you for believing in me, even in times when I did not believe in myself. This is for you.

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1 Introduction

In the United States, 2150 pieces of clothing are thrown away or destroyed every second. Nowadays, the fashion industry accounts for 10% of global carbon emissions. This is more than international flights and shipping combined (Dottle & Gu, 2022). Since the phenomenon of fast fashion has emerged, the industry has been associated with speed and flexibility, which are often also determinants for a company's survival within this business sector (Christopher et al., 2004). Thus, sustainable business practices were not relevant in this industry for a considerable time, and when sustainability became an increasingly important factor for consumers, incumbents in the fashion industry often engaged in greenwashing (Delmas & Burbano, 2011). On the contrary to greenwashing, born-sustainable businesses have emerged, which are defined as organizations that, since their founding, have built a sustainable business model to tackle specific environmental or societal issues (Todeschini et al., 2017).

Past research has shown that the triple layered business model canvas (Joyce & Paquin, 2016) can be used to showcase the economic, environmental, and social impact of born-sustainable businesses. A requirement for a sustainable business model is to create and deliver a sustainable value proposition. It has further been highlighted that aligning the values along the supply chain is critical for sustainable business models. As the triple layered business model canvas shows, a sustainable business model is concerned with balancing the triple bottom line (Todeschini et al., 2017). Thus, the production and the following product use-phase and the products' end-of-life are important factors to consider within the fashion industry. Circularity has been identified as one way to design a sustainable business model and is often used by born-sustainable companies. A circular business model is a counterpart to a conventional linear business model, which still dominates the fashion industry. Among the most important business models that draw from the principles of circular economy are rental, resale, repair, and remake (Ellen MacArthur Foundation, 2021).

Despite the increasing importance of sustainability in everyday life, academic research on born-sustainable firms is still in an early stage, especially research on born-sustainable firms in the fashion industry (Demirel et al., 2019). Past research was concentrated on how sustainable business models can be designed in a theoretical way (N. M. Bocken et al., 2014; Joyce & Paquin, 2016; Lewandowski, 2016). However, we still don't know how to overcome the multiple hurdles to successfully implement a sustainable business model. Furthermore, academic research has mainly

focused on the environmental aspect of sustainability while not paying much attention to the social side. As the fashion industry is one of the most polluting, resource-consuming, and labor-intensive industries in the world (Pal & Gander, 2018), it is crucial to close this gap and understand how born-sustainable companies implement their business model and evaluate necessary trade-offs. As a result, this thesis will contribute to filling in this gap by focusing on born-sustainable firms and by answering the following research question:

How can born-sustainable companies implement a sustainable business model in the fashion industry?

As the fashion industry has a lot of room for improvement in terms of sustainability, this study is relevant to entrepreneurs and managers in the fashion industry, especially to those of born-sustainable companies, and to researchers in sustainability and strategy to help them understand how born-sustainable companies implement their business model to tackle societal and environmental issues.

To answer my research question, I used a qualitative approach. More specifically, I carried out a multiple case study focusing on born-sustainable organizations. The studied companies were Refished, Maezen, and RubyMoon, three born-sustainable businesses that are active in the fashion industry. I drew on the triple layered business model canvas introduced by Joyce & Paquin (2016) to analyze the collected data and to identify how sustainable business models can be implemented in the fashion industry and how economic, social, and environmental value is created, delivered, and captured in a sustainable business model.

The structure of this thesis is the following. It is divided into six chapters. The first chapter is the *literature review* and presents the already existing knowledge from past research about this topic. It introduces the history and definition of sustainability and shows that the notion remains a topic of academic debate, then reviews why sustainability is of great importance in the fashion industry. Further, the following section showcases what has already been done to make the fashion industry more sustainable. The last subsection introduces the used tool to analyze the three chosen companies, the triple layered business model canvas. The second chapter shows the *methodology* used, from justifying the qualitative research design through data collection to data analysis. The following chapter, *empirical setting*, introduces the three selected companies. Then, the *findings* chapter provides an answer to the research question by demonstrating how the three studied

companies have implemented their sustainable business model and highlighting similarities and critical differences. The *discussion* chapter compares the derived findings with the already existing results of previous studies. The final chapter, the *conclusion*, presents an overview of the key results but also mentions the limitations of this study while at the same time making suggestions for future research.

2 Literature review

The literature review shows that the concept and definitions of sustainability and sustainable business models remain topics of debate among academics and practitioners. At the same time, the market for eco-friendly clothing is set to grow even more in the coming years as consumers are starting to make conscious purchasing decisions. The literature review further highlights how the fashion industry has evolved, why sustainability in this business sector is essential, and how born-sustainable companies can implement a sustainable business model.

In the first section, we review different views and definitions of sustainability (2.1.1). We then review why sustainability in the fashion industry is essential (2.1.2), how sustainability can be implemented in the fashion industry (2.2.1), and the framework used for this research, the triple layered business model canvas (2.2.2).

2.1 Sustainability: a historical overview of its introduction in management and by fashion companies

This section will shed light on the emerging topic of sustainability in a business context by pointing out contradictory views and definitions. Furthermore, a brief overview of how the fashion industry has evolved into a multinational business and the negative impacts resulting from this development is provided, thus showing that sustainability is crucial in this business sector.

2.1.1 Different views on sustainability in management: needless vs. necessity

Historically, the role of companies was perceived as limited to the economic sphere. The shareholder approach, the classical view towards the responsibilities of businesses (Quazi & O'Brien, 2000), states that executives serve as agents of the shareholders. The only social responsibility of such agents is to increase profits while complying with basic rules embodied in law or ethical customs to best exercise the principals' interest, who, in this case, are the shareholders of a firm (Friedman, 2007). One of the main rationales behind this argument, according to Friedman (2007), is that businesses are only artificial persons, and while people can have responsibilities, artificial persons cannot. Thus, businesses also cannot have social responsibilities. If an executive decides to tackle a general social or environmental issue, the executive would be spending the money of someone else, as these actions are likely to reduce

shareholder return or employee wages or may lead to higher prices for customers. Thus, someone else ultimately pays for the firm's good-natured efforts (Friedman, 2007).

Furthermore, according to Carr (1968), businesspeople have a lower set of moral standards due to competition and negotiation in the market than other members of society. The sole purpose of doing business is to generate profits, and as long as that occurs within the legal boundaries set by law, businesses fulfill their social responsibility. However, this view ignores that actions undertaken by a company affect different stakeholders, which can, in turn, again affect the company (Lantos, 2001).

As a counterpart to the shareholder approach, the concept of corporate social responsibility (CSR) was developed, which states that companies also have responsibility towards society (Smith & Rönnegard, 2016). Similarly, the stakeholder approach argues that firms are not solely held responsible by shareholders but are also accountable for various stakeholders that can affect or can be affected by an organization's objectives and actions (Freeman, 2010). Both concepts were among the first that questioned the behavior of firms outside the economic sphere (Dmytriiev et al., 2021).

In the 1980's when it became apparent that economic growth threatened to outstrip natural resources, more and more scholars started to question the responsibilities of firms outside of the economic sphere. This further emerged into the broad academic field of sustainability research that is continuously gaining interest and attention (Bansal & Song, 2017).

However, even nowadays, finding a common definition of sustainability or a distinction between corporate responsibility and corporate sustainability is still challenging. Even though historically the two terms were distinctive, they have converged over time and are now entangled, with researchers often using the two terms synonymously (Bansal & Song, 2017).

As a result, this thesis uses the definition of corporate sustainability, proposed by Bansal (2005). For organizations to express sustainable development, three principles have to be met: First, *environmental integrity through corporate environmental management*, which means that firms have to reduce their environmental footprint. Second, *social equity through corporate social responsibility*, which is coherent with the stakeholder approach (Freeman, 2010). Last, *economic prosperity through value creation*, which means that firms create products or services that consumers desire in an effective way which allows for profit generation.

Thus, actions by companies aimed at improving corporate sustainability, are usually voluntary and refer to including both social and environmental concerns in a company's agenda (Van Marrewijk, 2003). To include social and environmental concerns, companies can implement the triple bottom line (TBL). The TBL is an accounting framework that evaluates a company's performance in three different categories: social, environmental, and financial. Organizations that have adopted this framework try to optimize their efforts to be financially successful while simultaneously being socially and environmentally responsible (Elkington & Rowlands, 1999). Therefore, companies should not only be judged according to financial success but also based on non-economic criteria (Carroll, 1979).

As academic research on corporate sustainability has drastically increased over the years, criticism on multiple concepts was raised. Some researchers and academics argue that the TBL does not consider its three types of performance as related, and trade-offs and tensions among the three parts are ignored (Hahn et al., 2015). Even though firms' commitment to sustainability has changed over time, and it can be estimated that this commitment will further intensify as consumer awareness and stakeholder pressure increase (Bansal, 2005), the current sustainability practices that define the industrial sustainability agenda's state-of-art have been acknowledged as important yet criticized as insufficient to deliver a holistic change necessary for long-term sustainable development (N. M. Bocken et al., 2014). Furthermore, very few scholars have used a systems approach to derive strategies from social-ecological systems thinking. Most research focuses on the organization and its business case, trying to find strategies to convert less harmful practices into competitive advantages (Hahn & Tampe, 2021).

However, in recent years sustainable business models have emerged that, on the one hand, serve as a driver for competitive advantage while, on the other hand, include systems thinking and strong commitment. A sustainable business model incorporates the triple bottom line and considers a wide range of stakeholder interests. Furthermore, in a sustainable business model the value proposition provides ecological and/or social value as well as economic value and thus contributes to a sustainable development of the organization and society and leads to improved corporate sustainability. However, the general understanding of sustainable business models and research on the options of how to implement such a business model is limited (N. M. Bocken et al., 2014).

2.1.2 Sustainability in the fashion industry: the price of trendiness

The apparel industry has come a long way, from local artisan tailors to multinational enterprises with global and complex supply chains (Abernathy et al., 1999). The fashion pyramid introduced by Doeringer & Crean (2006) gives a good overview of how the apparel industry worked before the advent of fast fashion:

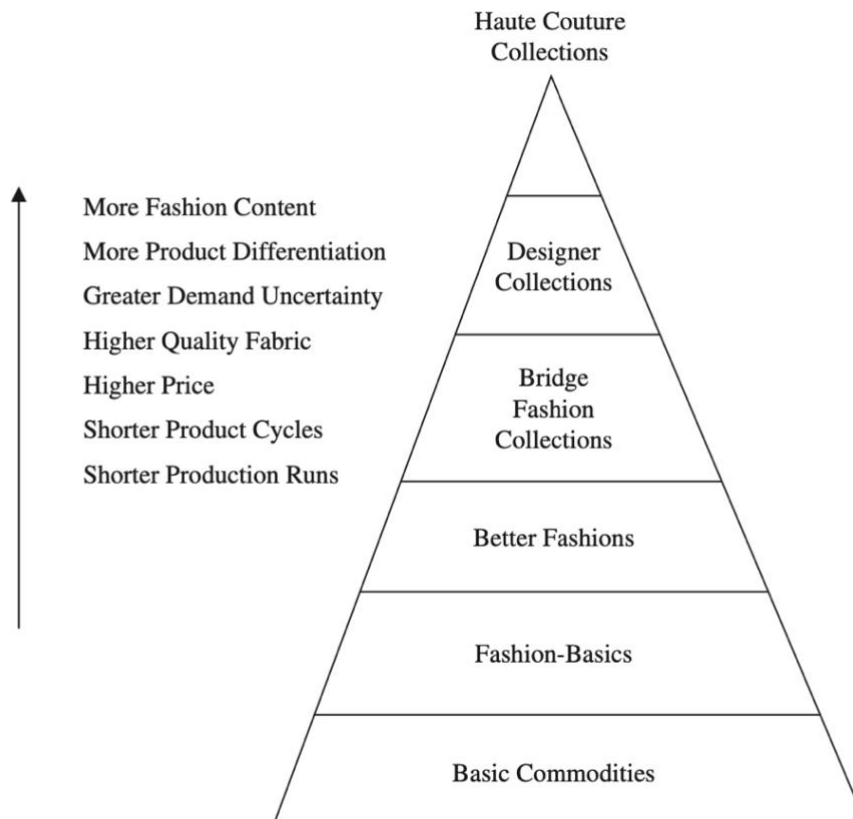


Figure 1: Fashion pyramid (Doeringer & Crean, 2006, p. 358)

Access to differentiated fabrics and designs was only achieved when moving up the pyramid. Companies at the bottom of the pyramid had to place large orders to achieve economies of scale and keep prices low. However, that led to those brands being slow and inflexible and did not allow them to react to consumer demands or offer their consumers a differentiated product portfolio (Doeringer & Crean, 2006). Technological innovation, as well as agile supply-chains and practices such as just-in-time production (Christopher et al., 2004), have allowed the desired products to be in the store within a few weeks, compared to the 66 weeks it took on average for clothes to get from manufacturing to the store in the 1980s (Barnes & Lea-Greenwood, 2006). Until the mid-

1980s, financial success stemmed from mass production of standardized styles like a white shirt or the iconic Levi's 501 denim. Even though styles did change, the pace of change was much slower, also due to design restrictions of factories. Fast-changing styles were only witnessed in haute couture (Brooks, 1979). Furthermore, the industry has always been characterized by labor-intensive work and low wages (Taplin, 2014). As wages in domestic countries started to rise, fashion companies shifted their production to developing countries with lower wage levels and lenient regulations and laws (Klein, 2009).

Due to this global and complex supply chain, environmental and social problems are apparent at every step along the chain and within the product lifecycles, starting with the design and production all the way to the disposal (Fehrer & Wieland, 2021). These problems mainly arise from extensive water usage, chemicals, child labor, low wages, and short product lifecycles (Allwood et al., 2006). The problems, however, do not solely stem from the producer's realm. The consumer also has certain responsibilities as the buying, using, and disposal behaviors can significantly impact the environment (Hvass, 2014). The ubiquity of relatively cheap, low-quality clothes has fueled consumption and resulted in a fast-fashion culture with shortened product lifecycles (Fletcher, 2013). In the United States, 2150 pieces of clothing are thrown away or destroyed every second. Nowadays, the fashion industry accounts for 10% of global carbon emissions. This is more than international flights and shipping combined (Dottle & Gu, 2022)

Ever since the advent of fast fashion, the industry has been associated with speed and flexibility, which are often also determinants for a company's survival within this business sector (Christopher et al., 2004). Those determinants have led to the fashion industry becoming one of the most polluting and resource-consuming industries globally (Pal & Gander, 2018) and an industry associated with exploiting the planet and people. This industry has mainly been focused on profit instead of balancing the triple bottom line (Morgan & Birtwistle, 2009). However, this development and the following negative social and environmental impacts have also led to various sustainability movements and companies building their business model around those trends, thus leveraging the possibilities of the triple bottom line by working toward a more sustainable fashion industry (Todeschini et al., 2017).

2.2 Sustainable business models: economic, ecological, and social value

This chapter will show how sustainability can be implemented in the fashion industry and will further introduce the triple layered business model canvas which is a tool that can help design sustainable business models.

2.2.1 Implementing sustainability in the fashion industry: green is the new black

A recent survey conducted in the Netherlands has shown that almost 30% of respondents consider sustainability when buying clothes. Another third of respondents do not yet do that but want to (ABN AMRO, 2019). As it is estimated that this trend will continue, firms are likely to show increased commitment to sustainability (Carroll, 2021). Another factor that has led to increased sustainability concerns by organizations was stakeholder pressure. For instance, employees' pressure resulted in Levi Strauss developing a code of conduct for suppliers. Media and NGOs are two further essential stakeholders influencing this development (Meixell & Luoma, 2015). Apart from a code of conduct, incumbents have started to review and reassess their corporate and business strategies to integrate environmental and social aspects into their businesses (Banerjee, 2001). The triple bottom line has gained newfound popularity (Engert et al., 2016). However, this has also led to an increased number of companies engaging in greenwashing, which is defined as false and misleading advertising of environmental practices or environmental benefits, in which some incumbents of the fashion industry have been involved. Unclear and not uniform regulations have further supported greenwashing practices (Delmas & Burbano, 2011).

On a more positive note, it can be said that so-called "born-sustainable" businesses have emerged. Born-sustainable businesses are companies that, since their founding, have built a sustainable business model (Todeschini et al., 2017). Despite their limited resources, those companies have initiated organizational changes and further built pressure on incumbents (Masurel, 2007). Positive environmental impact by born-sustainable companies is often accomplished by practices that combine traditional methods with innovations to produce clothes, for instance, by using recovered fibers, byproducts, or recycled materials which significantly reduces the number of used raw materials and resulting pollutants. Positive social impact can be achieved by supporting small, local producers and implementing stakeholder concerns and desires (Caniato et al., 2012).

N. M. Bocken et al. (2014) have developed eight sustainable business model archetypes that born-sustainable organizations can build on. Figure 1 illustrates those archetypes and gives examples for every model.

Groupings	Technological			Social			Organisational	
	Maximise material and energy efficiency	Create value from waste	Substitute with renewables and natural processes	Deliver functionality rather than ownership	Adopt a stewardship role	Encourage sufficiency	Repurpose for society/environment	Develop scale up solutions
Examples	Low carbon manufacturing/solutions	Circular economy, closed loop	Move from non-renewable to renewable energy sources	Product-oriented PSS - maintenance, extended warranty	Biodiversity protection	Consumer Education (models); communication and awareness	Not for profit	Collaborative approaches (sourcing, production, lobbying)
	Lean manufacturing	Cradle-2-Cradle	Solar and wind-power based energy innovations	Use oriented PSS- Rental, lease, shared	Consumer care - promote consumer health and well-being	Demand management (including cap & trade)	Hybrid businesses, Social enterprise (for profit)	Incubators and Entrepreneur support models
Additive manufacturing	Industrial symbiosis	Zero emissions initiative	Result-oriented PSS- Pay per use	Ethical trade (fair trade)	Slow fashion	Alternative ownership: cooperative, mutual, (farmers) collectives	Licensing, Franchising	
De-materialisation (of products/ packaging)	Reuse, recycle, re-manufacture	Blue Economy	Private Finance Initiative (PFI)	Choice editing by retailers	Product longevity	Social and biodiversity regeneration initiatives ('net positive')	Open innovation (platforms)	
Increased functionality (to reduce total number of products required)	Take back management	Biomimicry	Design, Build, Finance, Operate (DBFO)	Radical transparency about environmental/ societal impacts	Premium branding/ limited availability	Base of pyramid solutions	Crowd sourcing/ funding	
	Use excess capacity	The Natural Step	Chemical Management Services (CMS)	Resource stewardship	Frugal business	"Patient / slow capital" collaborations		
	Sharing assets (shared ownership and collaborative consumption)	Slow manufacturing			Responsible product distribution/ promotion	Localisation		
	Extended producer responsibility	Green chemistry				Home based, flexible working		

Figure 2: Sustainable business model archetypes (N.M. Bocken et al., 2014, p. 48)

The fashion industry has been shaped by multiple of those phenomena, and business models that are building on those phenomena have emerged, especially on the technological archetypes. Among the most important ones are upcycling, recycling, and circularity (Ellen MacArthur Foundation, 2021).

According to the report by the Ellen MacArthur Foundation (2021) the conventional linear business model still dominates the fashion industry. Nevertheless, circularity has shown promising growth rates and potential. Rental, resale, repair, and remake, which are the four most crucial circular business models, have the potential to grow from 3.5% market share in 2020 to 23% in 2030, which would result in a reduction of 340 million tons of CO2 emissions annually, which is more than the greenhouse gasses produced every year by France or Thailand (Ellen MacArthur Foundation, 2021). This is because circular business models decouple revenue streams from production and

resource use. To accelerate the positive effects of circular business models, enterprises can take four key actions: First, rethink performance indicators. Having a circular business model requires the company to rethink its performance indicators. Second, products should be designed to maximize their lifespan and allow for recycling or reusing. Third, fashion supply chains need to be able to circulate products locally and globally. Last but not least, by scaling multiple circular business models, businesses can fully take advantage of the environmental and economic advantages (Ellen MacArthur Foundation, 2021).

According to Gwilt (2020), companies following a circular business model are trying to close the loop, defined as steadily reusing materials without allowing them to end up in the waste stream. Recycling can be part of a closed-loop but also an open-loop system. In a closed-loop system, the materials are recycled in the same type of product, while in an open-loop system, the type of product is not identical and is frequently downgraded to lower value products. Recycled polyester, which is often used in the apparel industry and has proven to be more environmentally friendly than virgin polyester, can result from both loop systems (Gwilt, 2020). In 2021 recycled polyester had a share of 15% of total polyester production worldwide (Textile Exchange, 2021). Clothing that is partially made from recycled polyester often also contains organic cotton. Organic cotton is cotton grown organically using eco-friendly processes (Gwilt, 2020).

As opposed to recycling, upcycling targets to increase the value of a material that may otherwise be thrown away. Thus, the material is upgraded while prolonging its life. This opens almost endless possibilities for designers to be creative and experiment with different materials. Extreme approaches have, for example, included couture garments made from newspapers (Gwilt, 2020).

In 2020 the market value of the global ethical fashion industry reached \$6.35 billion (Yahoo Finance, 2022). The circular fashion industry's potential value is estimated to amount to \$5 trillion, including the global fashion industry's current market size of \$3 trillion (Vogue Business, 2020).

Even though the potential is promising, born-sustainable companies in general regardless of the sustainable business model they have implemented, are confronted with a diverse set of challenges. Some challenges arise from technical limitations, for example, regarding color choices of recycled materials. Another challenge is to convince customers about the benefits of their product offerings and thus justify the frequently higher prices (Todeschini et al., 2017).

Furthermore, the supply chain of fashion companies is usually long and complex (Abernathy et al., 1999). Therefore, aligning the values along the supply chain is often an issue (Todeschini et al., 2017). Furthermore, no company has the resources to tackle all the global social and environmental challenges. Thus, choosing which issues to tackle is essential. Especially since small companies have limited resources (Porter & Kramer, 2006). Nevertheless, born-sustainable fashion companies are satisfying emerging needs due to a change in consumer preferences, as sustainability is becoming an increasingly important factor in purchasing decisions (Lueg et al., 2015). Yet, there are still certain research gaps. Most past research has focused on the environmental side while paying less attention to the social perspective of corporate sustainability. Moreover, academic research on born-sustainable firms is still in an early stage (Demirel et al., 2019). Furthermore, former research has focused on how born-sustainable organizations can design a sustainable business model in theory. However, it is still unclear how those sustainable business models can be implemented in practice and how to overcome the resulting challenges when doing so.

As a result, this thesis will contribute to filling in this gap by focusing on born-sustainable firms and by answering the following research question:

How can born-sustainable companies implement a sustainable business model in the fashion industry?

2.2.2 Triple layered business model canvas: a tool for born-sustainable businesses

To answer my research question, I will use the triple layered business model canvas. A business model explains how the company creates, captures, and delivers value (Chesbrough, 2007). The business model canvas (BMC), introduced by Osterwalder & Pigneur (2010), is frequently used to illustrate a company's business model. However, the value is seen from a customer or company perspective, not from the perspective of other stakeholders or the environment (Pedersen et al., 2018). Thus, the BMC is of limited use for sustainable business models, and a different tool or an expert facilitator might be required to design a more sustainable-oriented business model (N. Bocken et al., 2013). The triple layered business model canvas (TLBMC) proposed by Joyce & Paquin (2016) fills this gap by adding two additional layers concerned with the environment and society to the original economically oriented layer of the BMC. Thus, the TLBMC builds on the original BMC and has been developed by consulting with experts, practitioners, and researchers and was evaluated in innovation workshops (Breuer et al., 2018). Alternatives to the TLBMC for

designing sustainable business models are the flourishing business canvas (Jones & Upward, 2014), the value mapping tool (N. Bocken et al., 2013), the sustainable business canvas (Tiemann & Fichter, 2016), and the business model canvas extended for infrastructure (Foxon et al., 2015).

Even though the TLBMC has been criticized for being user-unfriendly and overwhelming, due to the existence of many different building blocks (Lewandowski, 2016), it shows the gap in the current business model rationale while it also recognizes the fundamentals of the original BMC that has found widespread usage by practitioners and academics. However, the TLBMC does only offer a high-level summary of a sustainable business model and other tools may provide a more comprehensive analysis. Nevertheless, it helps to showcase the interconnectedness of a company's business model and its social, environmental, and financial impact and therefore builds on the widely understood and accepted concept of the triple bottom line (Joyce & Paquin, 2016).

The social layer builds on the stakeholder approach, which helps the organization to better understand its social impact (Freeman, 2010), while the environmental layer builds on a lifecycle perspective. Like the original economic layer, the two additional layers consist of nine interconnected building blocks each (Joyce & Paquin, 2016). It has been chosen as an appropriate framework for this thesis as the fashion industry has a significant impact on the environment and its stakeholders, and the TLBMC allows to showcase these positive and negative impacts.

The economic layer of the TLBMC contains the following building blocks: value proposition, customer segments, customer relationship, channels, key resources, key activities, key partners, costs, and revenues. Due to their interconnectedness, by combining these blocks, one gets an insight into how revenues outweigh costs and where those streams come from (Joyce & Paquin, 2016).

The environmental layer of the TLBMC contains the following building blocks: functional value, materials, production, supplies and outsourcing, distribution, use phase, end-of-life, environmental impacts, and environmental benefits. Like the economic layer, it explains how environmental benefits generated by sustainable business models outweigh negative environmental impacts (Joyce & Paquin, 2016).

The social layer of the TLBMC contains the following building blocks: social value, employee, governance, communities, societal culture, scale of outreach, end-users, social impacts, and social benefits. This layer can demonstrate how social benefits are generated and how they outweigh the negative social impacts (Joyce & Paquin, 2016).

Figures 2, 3, and 4 visually represent the three layers.

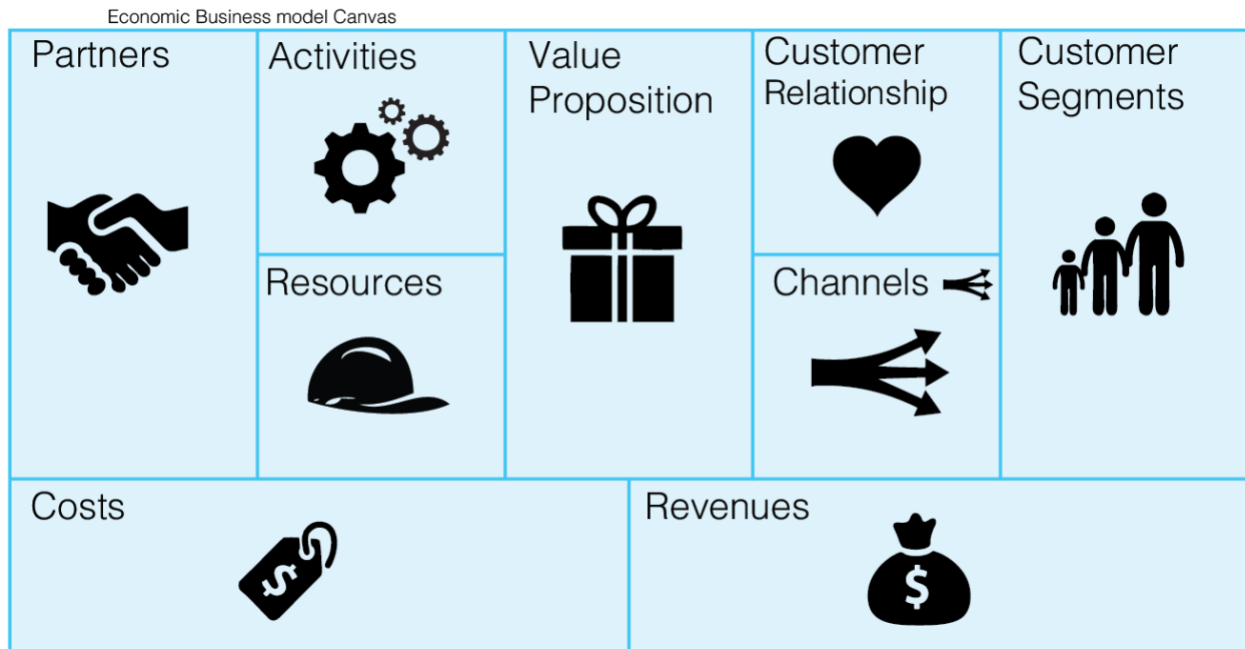


Figure 3: Economic layer (Joyce & Paquin, 2016, p. 1483)

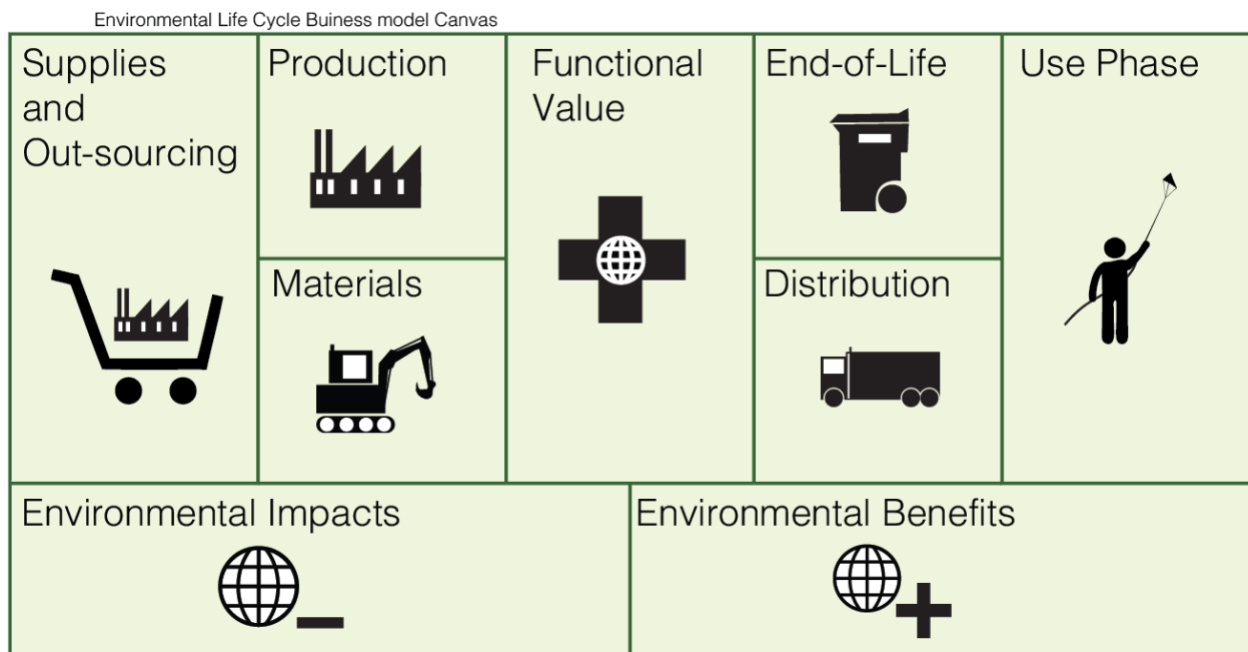


Figure 4: Environmental layer (Joyce & Paquin, 2016, p. 1483)

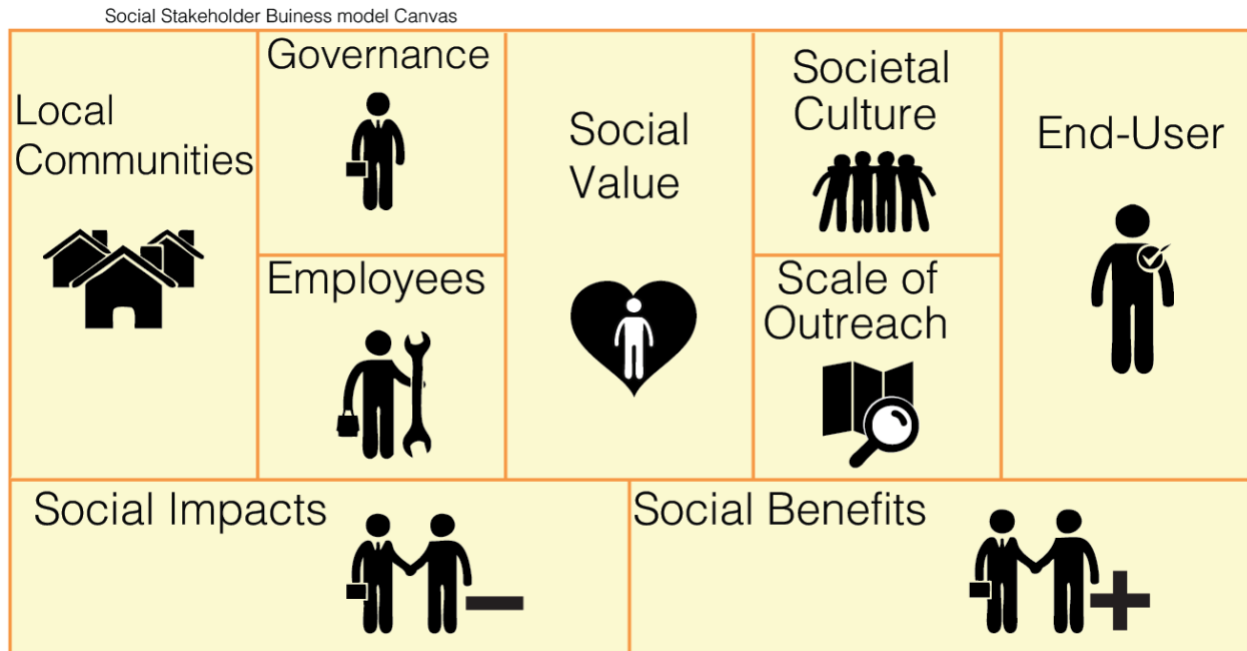


Figure 5: Social layer (Joyce & Paquin, 2016, p. 1483)

3 Methodology

This chapter describes the research design and how the data has been collected and analyzed. It is divided into three parts: *3.1 Explanation and justification of the research design*, *3.2 Data collection*, and *3.3 Data analysis*.

3.1 Research design

Qualitative research is defined as “an umbrella term to cover an array of interpretive techniques that can describe, decode, translate, and otherwise come to terms with the meaning, not the frequency, of certain more or less naturally occurring phenomena in the social world” (Van Maanen, 1979, p. 520).

I chose qualitative research as, according to Gephart Jr (2004), it is a suitable research design to grasp social processes that form the basis of management, and it can give insights into how management concepts and practices enrich the field. It is especially relevant in fields where it is challenging to gather insights using quantitative research. Since born-sustainable businesses and sustainable business models are relatively recent phenomena, it is important to understand these phenomena first by gathering insights from qualitative research, before conducting quantitative research as otherwise formulating meaningful hypotheses for a quantitative research design can be challenging.

Sustainable business models are not only a contemporary phenomenon but also characterized by complexity, as additional layers are added to the economic view of a traditional business model (Elkington & Rowlands, 1999). Other approaches might not be suitable to understand this complex phenomenon fully. To explore in a qualitative research design how sustainable business models in the fashion industry can be designed and implemented, I carried out an in-depth multiple case study. According to Yin (2009), case study research is suitable to investigate a contemporary and complex phenomenon. Furthermore, the results derived from a multiple case study approach have proven to be robust. Another advantage is that a multiple case study approach allows to compare differences and similarities between the studied companies.

In order to avoid organizations engaging in greenwashing, the companies had to fulfill the earlier definition of a born-sustainable business and be active in the fashion industry to qualify for this case study. Furthermore, to increase the comparability, another criterion was to have an online shop that ships to countries other than the domestic country. Three companies have been selected for

this case study: Refished, Maezen, and RubyMoon. While all of them fulfill the proposed criteria, they build on different components of the TLBMC. However, each of them is working towards a more sustainable fashion industry.

The selection process started with the identification of significant players in the sustainable fashion industry. Once the major players had been identified and contacted, it became apparent that their availability and commitment were not suitable to be selected as an appropriate case. Thus, I decided to shift my search towards smaller, less-known companies by using search engines and various social media platforms to search for born-sustainable fashion businesses and was thus able to find three companies I have chosen to analyze.

3.2 Data collection

I collected primary and secondary data, including semi-structured interviews with the company's founders, internal documents, articles, podcasts, and videos relevant to this study. I chose semi-structured interviews as they allow improvised follow-up questions based on the interviewees' responses (Rubin & Rubin, 2011). Furthermore, semi-structured interviews were important to explore the interviewee's thoughts and to delve deeply into faced challenges. I prepared the interview guide based on the research question and the chosen theoretical framework. The TLBMC and its different layers helped structure this process. Thus, the interviews started with broad questions to build a good conversation base and were narrowed down to gain insights into the companies' TLBMC. After conducting interviews with the founders, I chose to also conduct interviews with customers to see how they perceive the value proposition and get insights into the product's use phase, which is also a component of the environmental layer of the TLBMC. Furthermore, I decided to interview GOTS, the leading organic textile standard, as the interviews with the founders of the studied brands have revealed that certifications and NGOs are important partners, and to gain further insights into the benefits and advantages of organic cotton usage. The table below (Table 1) summarizes the most important themes discussed during the interviews.

Table 1: Themes of the interviews

<ul style="list-style-type: none">• How is the business model organized: how is value created, delivered, and captured• Characteristics of being a born-sustainable fashion company, how does it influence their choices, what trade-offs are necessary
--

- Partner's characteristics: how are they helping born-sustainable businesses, what are their objectives
- Customer's characteristics: why are they buying from a sustainable fashion brand, why are they willing to pay a premium price, what do they know about the company and its products

In addition to the primary data, I collected secondary data as it is critical to triangulate the data in qualitative research. Triangulation refers to using multiple data sources to have more than one source of evidence, which necessitates having information from different bases (Denzin, 2017). While selecting the secondary data, I paid attention to the relevance for this thesis and the source's trustworthiness. Since Refished and RubyMoon have been in business for multiple years, different secondary data from various sources were available. On the other hand, due to its young age, secondary data for Maezen was limited.

The following two tables give an overview of the primary and a summary of the secondary data that has been collected:

Table 2: Primary data collection

Organization	Type of data	Name of the interviewee	Position in the organization	Date of the interview	Length
Refished	Interview	Sissi Vogler	Founder, CEO	March 11 th , 2022	1h
Refished	Q&A over e-mail	Sissi Vogler	Founder, CEO	Feb. 17 th , 2022 - April 1 st , 2022	n.a.
Refished	Interview	Leonie Brzobohaty	Customer	April 11 th , 2022	30min
Maezen	Interview	Noah Neumair	Co-Founder	March 14 th , 2022	1h
Maezen	Interview	Julian Haller	Co-Founder	April 25 th , 2022	1h
Maezen	Interview	Melina Mazzucato	Customer	April 16 th , 2022	30min
Maezen	Q&A over e-mail	Noah Neumair	Co-Founder	March 1 st , 2022 - May 8 th , 2022	n.a.
RubyMoon	Interview	Jo-Anne Godden	Founder, Designer	March 26 th , 2022 April 20 th , 2022	1h
RubyMoon	Interview	Clara Botto	Customer	May 9 th , 2022	30min
RubyMoon	Q&A over e-mail	Jo-Anne Godden	Founder, Designer	March 1 st , 2022 - April 29 th , 2022	n.a.
Global Organic Textile Standard (GOTS)	Interview	Juliane Ziegler	Representative in Germany/Austria/Switzerland	April 27 th , 2022	30min

Table 3: Summary secondary data collection

Data source	Type of data	Use in analysis	Total
Online articles	Article from recognized and established newspapers and magazines about the researched case studies	Gather insights about the industry and the organization	Refished: 11 Maezen: 2 RubyMoon: 8
Interviews	Secondary, public interviews of the selected companies. Mainly the founder as the interviewee	Allowed to get an internal perspective; helped to become familiar with the companies' evolution and the organizational context	Refished: 4 Maezen: 0 RubyMoon: 4
Videos	TV, YouTube videos about the companies and/or founders	Allowed to get an improved understanding of the rationale and narrative of the selected companies	Refished: 3 Maezen: 0 RubyMoon: 2
Podcasts	Secondary, public podcast of company representatives, mainly of the founder	Allowed to get a better understanding of the companies' culture and its core values, used to get access to an internal perspective	Refished: 2 Maezen: 1 RubyMoon: 2
Companies' documents and website	Self-reported data, key figures, information, etc. from the companies' website or from internal documents	Allowed to identify whether the companies fulfill the criteria to be selected as a potential case, used to gather detailed information about the company	Refished: 4 Maezen: 3 RubyMoon: 3
		Total	Refished: 24 Maezen: 6 RubyMoon: 19 Total: 49

A complete overview of all collected secondary data can be found in Table 4 in the appendix.

3.3 Data analysis

To analyze the data, I used a coding method. This approach includes selecting, categorizing, and labeling the data (Strauss & Corbin, 1998). In the first step, I identified pre-defined codes by reviewing the research question, the existing literature, and the chosen theoretical framework. I used the triple layered business model canvas as a theoretical lens for the data analysis as it builds upon the widely used Business Model Canvas (Osterwalder & Pigneur, 2010) and covers all relevant aspects and characteristics of sustainable business models. This decision resulted in 27 categories and three themes. One example for a pre-defined category is *value proposition*, and *economic business model canvas* is an example of a pre-defined theme.

In the next step, I identified codes by reviewing the collected primary and secondary data and further classified those codes within the pre-defined themes and categories. This process was repeated with new data, and thus further distinct codes were created if they did not fit into previously identified codes. For example, the quote “*My customers are people who care about sustainability.*” fits in the pre-defined category of *customer segments* and the pre-defined theme of *economic business model canvas*. However, since there was no applicable code, the new code *sustainably minded* was created. Through this process, I identified 83 codes.

The following table 4 shows a visualization of the used method and approach. Table 6 in the appendix contains example quotations for each code.

Table 4: Coding elements

Codes	Categories	Themes
Sustainable, social, and environmentally friendly	Value proposition	Economic business model canvas
High quality		
Durable to prolong life		
Trendy		
Female empowerment	Customer segments	
Above-average income		
Sustainably minded		
Trendsetters		
Sporty women and feminists	Customer relationship	
B2B: CSR cautious companies		
Social Media		
E-Mail		
Physical store		
Community activities		

Web shop	Channels	
Retailers		
Physical Store		
External, ethical, and sustainable marketplaces		
Partnerships and network	Key resources	
Contracts		
Know-how		
Loyal customers		
Sustainably designing	Key activities	
Tracking environmental and social impact		
Building a community		
Carriers	Key partners	
NGOs		
Sustainable suppliers		
Production		
Embroidery		
Artists		
Female entrepreneurs		
Other importers		
Increased production and operating costs	Costs	
Free repairments to prolong life		
Financial participation of artists		
Sales	Revenues	
Corporate branding		
B2B upcycling projects		
Membership club		
Leasing model		
1.5sqm of cement or fish feed bags	Functional value	Environmental life cycle business model canvas
350/220gsm organic cotton	Materials	
Eco-friendly materials		
Upcycled materials		
Fair wages	Production	
Monitoring	Supplies and outsourcing	
Water		
Energy		
Dyes		
Eco-friendly packaging	Distribution	
Sea/land transport		
Air cargo		
Educating customer	Use phase	

Free repairs		
Cradle-to-cradle	End-of-life	
Reuse		
Water usage	Environmental impacts	
No renewable energy		
Waste reduction	Environmental benefits	
Less carbon emissions		
Supporting disadvantaged social groups	Social value	Social stakeholder business model canvas
Fair wages	Employees	
Fair working conditions		
Recognition		
Transparency	Governance	
Privately owned for-profit		
Not-for-profit		
Community of beneficiaries	Local communities	
Community of like-minded people		
Culture of responsibility and awareness	Societal culture	
Becoming a benefactor		
International shipping	Scale of outreach	
Social media exposure		
Using profits for a social cause		
Modern, stylish, high quality, sustainably produced	End-users	
Unique fashion item		
Highly limited fashion item		
Social exclusion if consumers	Social impacts	
Social exclusion of beneficiaries		
Depending on financial performance		
Improving quality of life of stakeholders	Social benefits	
Recognition		

4 Empirical setting

The three analyzed firms in this thesis, Refished, Maezen, and RubyMoon, are introduced in the following chapters. Each firm builds on different layers of sustainability. Refished focuses mainly on the environmental side, while Maezen builds on the social layer of sustainability. On the contrary, RubyMoon's mission results in the company strongly focusing on social and environmental perspectives. While Maezen is a relatively young company that has already experienced impressive growth and has built an extensive reach, especially on Instagram, Refished and RubyMoon have been in business for over ten years and have thus proven that sustainable business models can be successful, also in the long run.

4.1 Presentation of the cases

All the provided information within the next subchapters was derived from the interviews with the respective founders of the studied brands and publicly available information online.

4.1.1 Refished

Refished is an upcycling company based in Vienna, Austria. The company was founded in 2012/2013 by Austrian entrepreneur Sissi Vogler. After quitting her corporate job due to a lack of personal fulfillment and impact, Sissi traveled to India and Southeast Asia to find her purpose in life. What she experienced there was kindness and hospitality, but also a wide gap between rich and poor. Furthermore, she noticed the widely used cement and fish feed bags due to their unique design and color combination. Those bags are ubiquitous in countries like Cambodia, Vietnam, Laos, and Thailand, and they are often being reused and upcycled locally. However, many of those bags are not being reused and upcycled and often pollute the environment or the oceans. The material is quite durable and is similar to the one used for the broadly known IKEA bag.

Back in Austria, Sissi processed the new ideas and impressions, especially the colorful bags she had seen during her travels were impossible to forget for her. As a result, she developed and designed a small collection with the help of her mother, who is a master tailor. She aimed to produce in the same country where the raw materials come from, which in the case of Refished are cement and fish feed sacks. Because of this, she flew back to Cambodia and found a sheltered workshop there which was an ideal production partner for her business idea. This workshop is used by landmine victims who would otherwise have difficulty finding work. There they work for a fair wage and under fair conditions.

Almost ten years later, Sissi is still working together with the same sheltered workspace that she found in the early days of Refished. In the sheltered workshop, she has eight people working for her in Cambodia and two sewers in Vienna for those products where the raw materials are not sourced in Southeast Asia but in Austria. Sissi still manages Refished, and only since November 2021, she has had her first part-time employee responsible for social media, even though the company has managed to double sales per year since its inception and is still growing over 50% annually. Refished is currently generating a six-figure annual turnover.

Above all, their appearance on the Austrian offshoot of Shark Tank, 2 Minuten 2 Millionen, in early 2020, helped Refished get exposure and thus has significantly increased its brand awareness. On the show, they received an investment of €100,000 for 25.1% shares in the company, which corresponds to a company valuation of €400,000. After the show aired, Refished opened its first physical store in Vienna. In addition to its physical store, the company sells its products through its web shop and various trading partners. Refished products are now available in over 50 stores across Austria, Germany, Switzerland, Sweden, Romania, France, and the United Kingdom. However, the Austrian market is still the most important one for Refished. Refished targets sustainable, conscious individuals with an above-average income in urban areas. The main products are backpacks and bags made from cement and fish feed bags. Due to the upcycling aspect, every backpack and bag is unique. If a product breaks, the company also offers repairs to its customers. To keep production waste as small as possible, Refished moreover produces and sells small products like wallets or necessaires, which are made from the leftovers of the manufacturing process of the bags and backpacks. The prices for the backpacks are 89,90€ and between €59,90 and €129,90 for the bags, depending on the model.

Another revenue stream results from Refished's B2B activities. Apart from branding for corporate customers, Refished also conducts upcycling projects for organizations where a significant amount of waste is generated, for example, Kunstforum Wien and Bevedere Museum, where they get old exhibition flags that they use for upcycling projects.

4.1.2 Maezen

Maezen was founded in 2021 by Julian Haller and Noah Neumair and is based in Vienna, Austria. Although they do not operate a physical store or have partnerships with retailers, they sell their

products worldwide, exclusively through their web shop. However, their core market is still Germany and Austria, but the third biggest market is already the United States.

Their approach and philosophy can easily be explained by the meaning of the German word Mäzen, from which the company name is derived from. Mäzen translates to 'Patron of the arts'. Thus, the goal of Maezen is to support aspiring artists by giving them exposure and a stage to exhibit their art. This is achieved by working closely together to create limited clothing collections and financial participation of the artists in the net profit. Thus, their customers become a 'Mäzen' themselves. Furthermore, the artists and their vision are being introduced on their website.

Maezen provides the garment, the distribution, and their online platform, and the artists provide the artwork, which is exclusively designed for the company and is then embroidered on the chest area of the clothes, in a typical streetwear form of a box logo. Embroidery has been chosen instead of print due to its longevity and because it hardly washes out over time, which helps maintain and preserve the artwork. More than 45,000 stitches and over one hour of embroidering are needed per t-shirt and hoodie.

Until now, every collection consisted of three different designs created by one artist. While the offered colorways and fits stay the same, the artwork and theme are dependent on the collection. The company plans about eight different collections per year. Currently, Maezen only offers hoodies and t-shirts, but they plan to expand their product range to tote bags and other accessories. Their products are made by a certified sustainable manufacturer in Bangladesh from organic cotton and recycled polyester, while the embroidery is done in Germany. The prices for the hoodies are €99 and €49 for the t-shirts, and the company targets sustainably conscious individuals interested in art and streetwear and who like to possess something from a limited collection.

As mentioned before, the collections are limited, which means they are not restocked once they have been sold out. Their first collection got launched in October 2021, and in their first sixth months, they have generated a revenue of over €15,000. The team still only consists of the two founders, also because the distribution is outsourced, but since they are experiencing strong growth, they are planning on expanding their team in the near future.

4.1.3 RubyMoon

RubyMoon is the world's first and only fully circular, not-for-profit swim and active wear brand. The company was founded by British entrepreneur Jo-Anne Godden in 2010 and is based in

Brighton, United Kingdom. The company's mission is to clean up the oceans and empower women. This is achieved by using ocean waste to produce high-quality swimwear and transforming the generated profit into micro-loans for women entrepreneurs. In its 12 years of existence, the company has already invested in over 2200 women entrepreneurs.

After pursuing a successful career in lingerie and swimwear, Jo-Anne moved from the United States back to London, where she was about to start a new job. However, the job was rescinded due to the financial crisis in the late 2000s. Thus, Jo-Anne decided to start her own business. Since she had personally witnessed the negative impacts that fast fashion can have, it went without saying for her that it had to be a sustainable business. To avoid mission drift and send out a signal, she decided on a not-for-profit social enterprise. With the generated profits, she wanted to fight women's oppression, empower female entrepreneurs worldwide, and give them a chance they might otherwise not get. The goal is to lead those women and their families into a better future.

Almost 12 years later, Jo-Anne has one e-commerce manager and works with various freelancers. As the company's mission was always about women's empowerment, they currently only sell sports, and swim wear designed for women. The products are sold worldwide via their web shop, as well as via external, ethical, and sustainable marketplaces. While they ship worldwide, most of their sales come from Germany and Scandinavia. Their prices range from €66 to €115.

Although RubyMoon has managed to grow organically over the years, COVID and Brexit and the negative impact of both events weighed on the company's performance. Thus, the annual revenue has dropped to €30,000.

To make her idea a reality, Jo-Anne has partnered up with healthyseas.org, an NGO that collects nylon waste from the ocean, which is then used as a raw material for RubyMoon's products. Furthermore, they collaborate with the NGO lendwithcare.org to turn their profits into microloans for women. Once a credit has been repaid, it is reinvested in new loans. Thus, also this aspect of the company is circular. The production is located in Spain.

RubyMoon follows slow-fashion principles, and to ensure circularity, the company offers free repairs and a ten-year product guarantee. The company targets sporty women and feminists with an above-average income that value high-quality clothing.

5 Findings

The following chapter will answer the research question of how sustainable business models in the fashion industry can be implemented. The layers of the triple layered business model canvas structure the presentation of the findings: *5.1.1 Economic layer, 5.1.2 Environmental layer, 5.1.3. Social layer*. At the end of each chapter, a visual representation of the respective layer is provided, highlighting similarities, and pointing out differences between the three studied companies.

5.1 Triple layered business model canvas

The analysis of the structure and design of the TLBMC of the cases in this thesis is crucial to answering the research question of how sustainable business models in the fashion industry can be implemented.

5.1.1 Economic layer

5.1.1.1 A sustainable value proposition delivered to a conscious customer base

According to the model, sustainable business model need to have sustainability as part of the value proposition. Thus, Refished, Maezen, and RubyMoon all have implemented this precondition in different ways. Refished and RubyMoon for example use upcycled materials, while Maezen uses organic cotton and recycled polyester. Furthermore, all studied companies have various social components included in their business model, as discussed in a later section. The sustainability aspect is further supported by providing high-quality products which extend and maximize the product lifecycle, which helps to justify higher prices. Since sustainably made fashion items are usually more expensive, the consumers frequently also have increased expectations in terms of quality. In its early days, it was one of the top priorities for Refished to work on improving the quality:

“We took much time, in the beginning, to perfect our products in order to achieve the highest possible quality and to have a product that is long-lasting, to build up a small stock of regular customers.”

Interview of Sissi Vogler, Founder of Refished

Maezen also shared this desire and, especially in the beginning, mainly focused on achieving a product quality that satisfies the expectations that people have of a premium product:

“It is important to us that people associate us with high quality. Our products are not cheap. They can be considered premium products. Furthermore, as we are trying to support art and

artists, it was of utmost importance for us that the product is highly durable so that it can be worn for years.”

Interview of Noah Neumair, Co-Founder of Maezen

Similarly, RubyMoon has acknowledged that by prolonging the life of clothing, significant environmental impact is achieved, and thus, the company has considered this while choosing its production materials to maximize product quality and the product’s lifecycle:

“The result is a high-quality, durable material that is certified to be twice as strong: prolonging the life of your clothing is the greatest environmental impact that you can make with regards to clothing.”

RubyMoon website

The analysis shows that the sustainable value proposition must also be delivered to the right customer segments to be economically successful. All three studied brands have in common that they target a customer segment with an above-average income or consumers that are willing to pay a premium price for a sustainably made product due to the higher production costs that are involved when sustainably producing a high-quality product:

“The issue is that our pricing is actually what it costs to make things ethically and properly, pay people a decent wage, pay for decent fabrics that are going to last ten years. Thus, we target a customer segment that is willing to spend a premium price for such a product.”

Interview of Jo-Anne Godden, Founder of RubyMoon

Similarly, for Refished in its B2C market. Since the company is also active in the B2B market, and not every company actively tries to mitigate its negative environmental or social impact, Refished’s corporate customers are usually companies that engage in CSR:

“In the B2B market, we conduct upcycling projects for large companies, where much waste is generated, for example advertising waste or advertising tarpaulins that are no longer needed. Those companies are usually quite environmentally conscious and often pioneers in terms of CSR.”

Interview of Sissi Vogler, Founder of Refished

For Maezen, not only the production costs are increased, but they also work with artists who get a share of the net profits. However, this also allows them to target a customer base that is willing to pay a premium to support a profession that is financially often underrepresented:

“Purchasing the hoodie from Maezen felt like the right thing to do for me. It was expensive, but I am willing to pay that, knowing that with this purchase, I support artists and considering that the product is sustainably made from organic cotton.”

Interview of Melina Mazzucato, Maezen customer

Furthermore, all three studied brands mentioned that it was a challenge for them to justify the high prices, especially in the beginning when the brand was unknown and not established yet:

In the beginning, I was mainly at design markets, and the target group there was students, and for many, it was too expensive, quite simply. Furthermore, the brand was not even established back then.

Interview of Sissi Vogler, Founder of Refished

In order to gain immediate access to an international market and because their customer segment is familiar with online shopping, all three companies have decided to establish a web shop, through which the majority of sales are generated. This has further helped Refished to establish the brand and made it easier to justify the prices in an offline setting. In addition to the web shop, Refished and RubyMoon have partnered with external sustainable and ethical marketplaces and retailers. Most of those retailers are specialized in sustainable products. Furthermore, Refished has decided to open its physical store as the company has noticed that some customers prefer to see the product in real life before making a purchasing decision. Having a physical store also allows to further elaborate on the value proposition and the company’s mission and vision:

“I have been a fan of the brand for a while, and when I visited their web shop to look at their offerings, I have seen that they also operate a physical store. So instead of buying something online, I visited their store in Vienna. Since the products are rather expensive, seeing the bags in real life and talking to the store staff allowed me to better understand what the brand does and stands for and thus helped me a lot with my purchasing decision.”

Interview of Leonie Brzobohaty, Refished customer

The three cases have identified social media as an appropriate and suitable tool for customer relationship. Apart from social media, the studied brands use e-mail newsletters to stay in touch with their customers. Signing up for the newsletter allows the consumer to get notified about discounts, and new collections and, in the case of Maezen, also gives them early access when a new collection is dropping. Maezen and RubyMoon further intensified their customer relationship with the ultimate goal of building a community of like-minded people:

“In the long term, we want to establish a patrons club where we can effectively connect via Discord, Telegram, or something on a personal level.”

Interview of Noah Neumair, Co-Founder of Maezen

RubyMoon has found another way to stay in touch with their customers, which has helped them to build a community:

“We have a full moon swim every month, and we have over 120 people coming to that each time. This is great. Seeing so many like-minded people together.”

Interview of Jo-Anne Godden, Founder of RubyMoon

Refished further uses its physical store as a sales channel and a tool for customer relationship, as it allows the founder to engage with customers in a face-to-face manner.

Many of my regular and loyal customers live in Vienna. They really like the fact that we have the shop now and they like to come here, and they can see all the products we have right away or sometimes they even just stop by to chat.

Interview of Sissi Vogler, Founder of Refished

To sum up, the results show that building a community and engaging in customer relationship is one of the main activities of sustainable business models. Especially when founding a new company, revenue often arises from loyal, regular customers who share the company’s vision.

5.1.1.2 Finding the right partners, building key resources, engaging in key activities

One of the identified core activities in a sustainable business model is selecting the right partners. The partners must support and share the sustainable vision of the company:

“We carefully select suppliers and stakeholders so that we all follow the same standards and share the same vision.”

RubyMoon website

The analysis shows that a sustainable organization cannot work together with an unsustainable partner. Finding the right partners is also essential to deliver or create the value proposition. Especially having the right production partner is crucial:

“I am producing my products in a sheltered workshop in Cambodia. Physically disabled mine victims, who would otherwise have struggled to find a job, work in this workshop under fair conditions and for a fair wage.”

Interview of Sissi Vogler, Founder of Refished

Also, for Maezen, the partners are vital since they work together with artists who design the artwork, which is then embroidered on the clothes. Thus, multiple partners are involved along their

value chain. Especially certifications are valuable for them, as it showcases that a potential partner has been certified as being sustainable by an external auditor:

“When choosing our manufacturer, it was a basic requirement for us that he has certifications that confirm his sustainability practices. We are a small company and do not have the resources to visit and control the production site. That is why we depend on such certifications, as they help us ensure that our partners share the same values.”

Interview of Julian Haller, Co-Founder of Maezen

This is further important as regulation is still lacking and is often even enabling greenwashing practices. Thus, even though a corporation may have good intentions, due to a lack of unified regulations, the actual practices and products may not be as sustainable as estimated and intended:

“The term organic cotton is not protected in the EU. This makes greenwashing easier because no proof has to have taken place for a producer or a label to be able to claim: “made with organic cotton.”

Interview of Juliane Ziegler, GOTS Representative of Germany, Austria, Switzerland

Nevertheless, certifications are not only beneficial for the company when choosing a partner. They are also helpful in externally certifying the sustainable business model’s environmental impact and thus are also an essential partner themselves. Especially since many corporations have been engaging in greenwashing and since regulation is not unified nor up-to-date, certifications can send a strong signal to the consumers:

“The fabrics and garments (...) are certified by The Princes Accounting for Sustainability Project to produce 42% less carbon emissions as they journey from drawing board to final product.”

RubyMoon website

However, there is also a downside and trade-off. The studied companies are small in terms of revenue. They have built a loyal customer base and are growing organically. They use certifications to influence their decision when choosing a partner. However, they are barely using certifications for their business operations due to various reasons:

“We have seen a huge growth in certifications and organizations that want to certify everything, qualify everything, make everything traceable. Which I am a huge fan of. But there are so many out there now. So many have good intentions, so many are questionable. I think what I have been trying to do is just wait and playing a game of wait and see. Because we could have joined some of those long time ago. But there is so much greenwashing. So, I am almost like, do we dedicate thousands and thousands of euros and thousands of hours of time? Because that is what it takes to get certified for a small company. Is it worth it?”

Interview of Jo-Anne Godden, Founder of RubyMoon

What the studied brands are doing instead is to be as transparent as possible so that the customers get a better understanding of the company's practices:

“What you do need to be is totally transparent. If people are not transparent, nobody really knows what is going on in any organization.”

Interview of Jo-Anne Godden, Founder of RubyMoon

“We communicate very clearly where something was produced. We have clearly communicated our values on our website. You can ask us anything, and we will give you an honest answer.”

Interview of Sissi Vogler, Founder of Refished

“We have recently visited our embroidery partner in Germany and have filmed content there so our customers can see the embroidery process. Later this year we also want to visit our production site and do the same. Showing your customers how the products are made is an important step towards total transparency, in my opinion.”

Interview of Julian Haller, Co-Founder of Maezen

Furthermore, Refished and RubyMoon rely on partners to source their raw materials, which in the case of Refished is mainly cement and fish feed bags and nylon waste in the case of RubyMoon.

“Our journey begins in collaboration with Healthyseas.org – an NGO that collects ghost fishing nets from the oceans and protects its biodiversity. The nets are leaching microfibres as well as killing over 100K animals per year- so we must remove them from the seas.”

RubyMoon website

Those partnerships and the resulting network, the contracts, and the know-how are all considered key resources for the studied brands. Furthermore, the infrastructure they have built, a necessity to develop a sustainable fashion item, is another asset.

Designing is one of the key activities of the studied brands and of great importance for sustainable fashion brands because the product's lifecycle can be prolonged with the right design. However, for all of them, designing is also often a challenge due to the nature of their business. Maezen only provides the design of the blank t-shirts and hoodies. The artist designs the embroidered box logo. As the company chose embroidery instead of print, as it further prolongs the lifecycle of the artwork and the clothing piece, it also limits the design choices:

The design for the embroidery always comes from the artist. We do not influence that. It is important to us that we give our artists the freedom to design. Apart from the artist, the design is

also determined by the technical possibilities of the embroidery. Not every design is feasible because shading is not so easy, and sometimes you have to find compromises.

Interview of Noah Neumair, Co-Founder of Maezen

For Refished, the design is partly determined by the design and colors of its raw materials, which limits the design opportunities:

“The design choices are obviously limited, as we are an upcycling company. Thus, the only thing I do is that with the large products, I say, for example, I would like the fish motifs that are on the fish feed bags to be on the front of my product, but whatever comes on the back does not matter. Then, for example, the back just consists of the writing from the original material.”

Interview of Sissi Vogler, Founder of Refished

Also, for RubyMoon, designing is an important activity, as the company follows slow fashion principles. The company keeps those principles in mind when designing its pieces and thus tries to reduce consumption while staying true to its values:

Designed & manufactured according to circular, regenerative, and slow fashion principles, all our pieces are versatile, affordable, and easily combined since they are produced as a capsule collection. This reduces waste and consumption allowing us to “Do more with Less’ pieces.

RubyMoon website

Another key activity of sustainable business models is to track and evaluate the social and environmental impact that the firm has. Refished, for example, tracks the amount of cement and fish feed bags that they are upcycling, Maezen tracks the financial participation of their artists, and RubyMoon tracks how many female entrepreneurs they have invested in.

5.1.1.3 Revenues vs. costs: being economically healthy to pursue the sustainable mission

For a sustainable business model to be economically healthy and thriving, the revenues must outweigh the costs. This allows the company to sustain itself in business and have a positive environmental and social impact, resulting from the sustainable business model. For instance, the more bags Refished sells, the more cement and fish feed bags are upcycled and do not pollute the environment or the oceans. The more net profits Maezen achieves, the more financial participation for the artists. The more products RubyMoon sells, the more ocean waste is upcycled, and the more profits they make, the more female entrepreneurs can access a micro-loan.

Most of the revenue of the studied companies derives from sales to consumers. In addition to that, Refished and RubyMoon have additional revenue streams. Refished also engages in B2B activities.

They conduct upcycling projects for companies that generate a considerable amount of waste, often advertising waste. Furthermore, the company offers branding for corporate customers. As RubyMoon offers products that are at the upper end of the price spectrum, the company introduced a membership club and is planning to introduce a leasing model in the future in order to mitigate potential social exclusion arising from the premium prices:

“I am aware of potential social exclusion, and that is why we have launched a membership club so that people can use that as like a bank kind of thing, that they can put a little bit of money aside every month so that they can then afford to purchase our garments. But they are not forced to buy anything, they can also just leave their money in their account.”

Interview of Jo-Anne Godden, Founder of RubyMoon

Essential cost factors for all three brands are operating and production costs. Furthermore, in order to deliver on their promised high-quality and sustainability value proposition, Refished and RubyMoon are offering free repairs and are thus maximizing the product lifecycle:

“If any product is defective, you can bring it back or send it to us, and we will fix it and send it back, or it will be picked up again. That is part of our service, and we do not charge anything for that. One of our goals is to maximize the life of the product.”

Interview of Sissi Vogler, Founder of Refished

A significant cost factor for Maezen is the artists that they are supporting since they receive a share of the net profits:

“We currently give the artists between 15 and 20 percent of the net profit. Since our production costs are quite high, unfortunately, we cannot offer them more as of right now.”

Interview of Noah Neumair, Co-Founder of Maezen

To summarize, all brands have additional costs that fashion brands without a sustainable business model often do not have. However, those additional costs are necessary to deliver and create the promised value proposition and stay coherent with the company values.

5.1.1.4 Visualized economic business model canvas

The figure below summarizes the key takeaways for each building block of the economic business model canvas, pointing out similarities and differences between the three players:

Key Partners <ul style="list-style-type: none"> • Carriers (all) • NGOs (all) • Sustainable suppliers (all) • Production (all) • Embroidery (Maezen) • Artists (Maezen) • Female entrepreneurs (RubyMoon) • Other importers (RubyMoon) 	Key Activities <ul style="list-style-type: none"> • Designing (all) • Tracking environmental and social impact (all) • Building a community (all) 	Value Proposition <ul style="list-style-type: none"> • Sustainable, social and environmentally friendly (all) • High quality (all) • Durable (all) • Trendy (Refished, Maezen) • Female empowerment (RubyMoon) 	Customer Relations <ul style="list-style-type: none"> • Social Media (all) • E-Mail (all) • Physical store (Refished) • Full moon swims (RubyMoon) • Discord, Telegram (Maezen) 	Customer Segments <ul style="list-style-type: none"> • Above-average income (all) • Sustainably minded (all) • Trendsetters (Refished and Maezen) • Sporty women and feminists (RubyMoon) • B2B: companies that engage in CSR and produce a lot of waste (Refished)
	Key Resources <ul style="list-style-type: none"> • Partnerships and network (all) • Contracts (all) • Know-How (all) • Loyal customers (all) 		Channels <ul style="list-style-type: none"> • Web shop (all) • Retailers (Refished, RubyMoon) • Physical store (Refished) • External, ethical, and sustainable marketplaces (Refished, RubyMoon) 	
Cost Structure <ul style="list-style-type: none"> • Production and operating costs (all) • Free repairs (Refished, RubyMoon) • Financial participation of artists (Maezen) 			Revenue Streams <ul style="list-style-type: none"> • Sales (all) • Corporate branding (Refished) • B2B upcycling projects (Refished) • Membership club (RubyMoon) • Leasing model (RubyMoon) 	

Figure 6: Filled out economic business model canvas

5.1.2 Environmental layer

5.1.2.1 Careful selection of the materials, supplies, production, and distribution

An important decision for all three companies was which materials they wanted to use for their products. The materials used by the studied companies are either upcycled, recycled, or organic. Refished and RubyMoon use upcycled materials that would otherwise often end up polluting the environment or the oceans. Thus, by using those upcycled materials, they are mitigating pollution and a societal problem. In the case of RubyMoon, they are tackling a problem that directly impacts its customers, as the company sells swimwear. Maezen uses GOTS certified organic cotton and recycled polyester for their products, as they are an eco-friendlier option than conventional cotton and non-recycled polyester.

All brands have in common that their materials are coherent with the promised value proposition. This means that the requirements for the materials are that they are sustainable, durable, and of high quality at the same time:

“We chose organic cotton and recycled polyester as materials because we wanted to fulfill our social responsibility, and at the same time, we really care about quality. Those materials were able to fulfill those requirements.”

Interview of Noah Neumair, Co-Founder of Maezen

Furthermore, the three brands need the same supplies for their production, mainly water and energy. Energy is further needed to operate the web site and shop. While RubyMoon already uses 100% renewable energy for its manufacturing and digital platform, Refished and Maezen both have mentioned that those are points that they want to improve and work on in the near future.

Regarding the location of the production, the similarities are not that clear. Refished produces most of its products in a sheltered workshop in Cambodia, where landmine victims work for a fair wage and under fair conditions. Southeast Asia has been chosen as a production location as the raw materials are sourced there. For the B2B upcycling project where the raw material is not sourced in Southeast Asia, Refished produces in Austria:

“We always produce where the basic material comes from. Thus, either Cambodia for the material that’s sourced in Asia, or in Austria for the upcycling projects.”

Interview of Sissi Vogler, Founder of Refished

Maezen produces in Bangladesh, but they want to relocate the production to Portugal in the future:

“Sooner or later, we want to produce in Portugal, but we have not found a manufacturer that is GOTS certified and affordable for us. When people hear made in Bangladesh, they kind of think of fast fashion and bad working conditions. But if you look at it differently, made in Bangladesh does not only have negative sides. You create jobs, and the GOTS certification also confirms that the people work there under fair conditions.”

Interview of Noah Neumair, Co-Founder of Maezen

RubyMoon produces in Spain:

“European manufacture is really important because we do not want to be importing from Asia, among other factors due to carbon reasons. So, it had to be within Europe and had to allow for small quantities. We are thinking of relocating the business to Barcelona anyway. So, it is a bit of a no-brainer to try and choose somewhere where we can monitor our production easily.”

Interview of Jo-Anne Godden, Founder of RubyMoon

Thus, similarities in terms of production can be found in monitoring. Refished had the chance to handpick its production site and thus get a first-hand impression of the working conditions. Maezen uses a GOTS certified manufacturer. Thus, the company can be assured that the manufacturer gets assessed and audited regularly. RubyMoon chose a production location that is close to its headquarters. Furthermore, Refished and RubyMoon share the same desire to decrease carbon emissions and thus chose a production location close to their headquarters or close to where the material is sourced.

Moreover, the three brands have in common that they offer limited variation in terms of color and design. This is due to various reasons. For Refished, the color is determined by the raw material. Maezen offers limited color variations because they want the artwork to be at the center of attention. RubyMoon designs its products as a capsule collection and thus focuses on neutral colors. This allows the brands to lower their production expenses:

“For us, offering only a small selection of colors has several advantages. On the one hand, of course, we want the artwork to be in the foreground, so only neutral colors would be considered anyway. At the moment, however, our margins are too low to offer several colors because then the production costs would be even higher.”

Interview of Julian Haller, Co-Founder of Maezen

As all the studied brands operate a web shop, they also need a carrier. Here they face another trade-off. For ship transport to pay off, you usually need a large volume, and it tends to be slower than

air cargo. Refished and Maezen both use air cargo. However, ship transport is the environmentally friendlier option:

“There is always room for improvement. As with us, for example, the transport route. We do air cargo because we still have far too little volume for ship transport to pay off now.”

Interview of Sissi Vogler, Founder of Refished

On the other hand, RubyMoon does use ship and land transport. They have mitigated the volume problem by partnering up with other firms to get enough volume for ship transport to pay off:

“Of course, air cargo would be easier. For us to enable ship transport, we have to go the extra mile. You must buddy up with someone to fill half a container, do those kinds of things.”

Interview of Jo-Anne Godden, Founder of RubyMoon

A quick win for the studied brands in terms of packaging was to use eco-friendly packaging like recycled cardboard boxes. Refished goes one step further and tries to reuse cardboard boxes whenever possible:

“On the one hand, we try to reuse cardboard boxes. Sometimes I actually go into the garbage room and see if I can find nice, intact boxes. If so, then I will take it and write on the outside of the package something like ‘I am reused’. That helps a little to make shipping more sustainable.”

Interview of Sissi Vogler, Founder of Refished

Thus, the choice of materials, supplies, production, and distribution should be viewed holistically as co-dependent. The choices are likely to impact the triple bottom line, and companies find themselves making trade-offs while balancing sustainability and profitability.

5.1.2.2 Educating and supporting the customers, implementing cradle to cradle

Once the product is produced and delivered to the customer, most social and environmental responsibility gets transferred to the buyer. Thus, the customer determines how he uses and maintains the product. Nevertheless, this does not mean that the responsibility of the brands ends here. As a result, Refished, Maezen, and RubyMoon are trying to guide and positively influence their customers during the use-phase of the product lifecycle. Maezen does this by creatively using the laundry tag:

“On our website, as well as the products’ laundry tag, it states: ‘Wear often and wash less for a happy environment.’ This might be a small thing, but if it helps get a few people to reconsider their habits, this is already great. This not only extends the life of our products but also helps to save water and energy.”

Interview of Noah Neumair, Co-Founder of Maezen

Refished and RubyMoon offer free repairs to their customers to prolong and maximize the products' lifecycle:

If one of our products breaks, you can return it to us, and we will fix it for free. This is part of our 10-year product guarantee.

Interview of Jo-Anne Godden, Founder of RubyMoon

The two companies further emphasize what happens at the end of the product's life. Refished focuses on reusing the bags and showcasing other, different use-cases:

“You can always find new use cases for old and broken things. For example, one of my first bags broke at some point, but it was still useable. Now I am using it as a wastepaper bag, which is a completely new use case as originally intended. Ever since, I have realized that we communicate this more intensively on social media. This not only applies to our products, but many everyday things can be reused instead of thrown away.”

Interview of Sissi Vogler, Founder of Refished

RubyMoon went one step further by implementing a cradle-to-cradle design. The company reclaims used swimwear. The swimwear does not have to be from RubyMoon. It can also be swimwear of other brands. This old swimwear is then further used and put back in the loop by RubyMoon:

“Some people also send us swimwear. It does not have to be our swimwear. It can be anyone's swimwear because we are putting it back in the loop. And for doing so, they get 5% off a new product.”

Interview of Jo-Anne Godden, Founder of RubyMoon

The studied brands all acknowledge the importance and environmental impact of their customers. Their approaches are also some forms of customer relationship, the note on the laundry tag, the free repairs, and the incentive for sending back used swimwear. This showcases that the responsibility of sustainable fashion brands does not end once the product has been sold to the customer.

5.1.2.3 No environmental benefits without adverse environmental impacts

Even though the three companies have a positive environmental influence and are trying to mitigate their negative impact, some effects cannot be mitigated, often due to the nature of the used materials. One negative impact is high water usage. Certified organic cotton that Maezen uses as

material for its production does also need a lot of water, although usually less than conventional cotton. Since the used materials of Refished and RubyMoon are upcycled, they need to be cleaned before they can be further used:

“Before we can use the cement or fish feed bags, they need to be cleaned since they are used. They are washed with soap and water, sometimes just water. It depends on how dirty they are, but we try to minimize the usage of water and cleaning supplies.”

Interview of Sissi Vogler, Founder of Refished

Even though they need to be cleaned and thus increase the water usage, the alternative would often be that those materials that RubyMoon and Refished use would pollute the environment and the seas if those companies would not upcycle them:

“The fabric used in all our garments is made with ECONYL® yarn, a 100% regenerated nylon fibre made from nylon waste otherwise polluting the Earth, like fishing nets, fabric scraps, carpet flooring and industrial plastic rescued from all around the world.”

RubyMoon website

“In total, we process around 5000 square meters of cement and fish feed bags every year. 5000 square meters of a material that would otherwise likely end up in the trash.”

Interview of Sissi Vogler, Founder of Refished

The fashion industry required the studied brands to engage in inevitable trade-offs to balance the triple bottom line and their environmental impact. Some negative environmental impacts can be mitigated but require investments or higher expenses, and others are unavoidable. Thus, one of the goals of the studied brands is to maximize their environmental benefits while minimizing their negative environmental impacts.

5.1.2.4 Visualized environmental life cycle business model canvas

The figure below summarizes the key takeaways for each building block of the environmental life cycle business model canvas, pointing out similarities and differences between the three players:

Supplies and Outsourcing <ul style="list-style-type: none"> • Water (all) • Energy (all) • Dyes (Maezen, RubyMoon) 	Production <ul style="list-style-type: none"> • Cambodia, Sheltered Workshop (Refished) • Austria (Refished) • Bangladesh, GOTS certified manufacturer (Maezen) • Spain (RubyMoon) 	Functional Value <ul style="list-style-type: none"> • 1.5 square meters of cement of fish feed bags (Refished) • 350/220gsm organic cotton (Maezen) • n.a. (RubyMoon) 	End-of-Life <ul style="list-style-type: none"> • Highlighting new use cases (Refished) • Cradle-to-cradle (RubyMoon) 	Use-Phase <ul style="list-style-type: none"> • Free repairments (Refished, RubyMoon) • Wash less laundry tag (Maezen)
	Materials <ul style="list-style-type: none"> • Cement and fish feed bags (Refished) • Advertising waste (Refished) • GOTS certified organic cotton, recycled polyester • ECONYL (RubyMoon) 		Distribution <ul style="list-style-type: none"> • Air cargo (Refished, Maezen) • Sea/Land transport (RubyMoon) • Eco-friendly packaging (all) • (Re)Used cardboard boxes (Refished) 	
(-) Environmental Impacts <ul style="list-style-type: none"> • Water usage (all) • No renewable energy (Refished, Maezen) 			(+) Environmental Benefits <ul style="list-style-type: none"> • Waste reduction (Refished, RubyMoon) • Environmental benefits from using organic cotton and recycled polyester as opposed to conventional cotton and polyester (Maezen) • Certified 42% less carbon emissions (RubyMoon) 	

Figure 7: Filled out environmental life cycle business model canvas

5.1.3 Social layer

5.1.3.1 Building value for stakeholders and the end-user

All three studied brands create social value differently. By balancing the 3-P's, sustainable business models create social value. Refished does so by giving work to landmine victims, who would otherwise have difficulty finding work:

“People with disabilities who would not find a job otherwise have found one through Refished.”

Interview of Sissi Vogler, Founder of Refished

Since the company has been growing steadily, Refished was able to increase the sewing and bag orders continuously, and therefore, the sheltered workshop was able to expand its operations. The company also portrays the sewists on their website and gives them a platform to share their story. Moreover, the seamstress or sewer who made the respective product signs on a tag that comes with the bags:

“I want to convey that the social component really does exist at Refished. I did it in such a way that I let the seamstress sign her name on every product, it also says where it was made and the material it is made of. The people are also presented on my homepage.”

Interview of Sissi Vogler, Founder of Refished

Maezen creates social value by giving aspiring artists a stage and exposure in addition to a 15-20% financial participation of the achieved net profits. Working together with artists also allows the brand to achieve synergy effects as it draws the artists' already existing followers' attention to the brand. Since the brand has a fast-growing follower base on Instagram and is currently standing at 30.000 followers from all around the world, with multiple of their videos having above 500.000 views, the artists they work together with and featured in their videos were able to gain many new followers on their own social media pages, which they use to show their work and often also as a sales channel. Furthermore, all artists are featured and introduced on their website:

“We do not just offer the artists a one-time commission and say thank you, that is it. We offer artists a lot more than that. We do all the marketing. We are constantly pushing them on our channels, even weeks after the drop. They get exposure through us. They get a community through us. Through us, they get a feature on the website and much more than that. The monetary component is only a small part of what we offer our artists.”

Interview of Julian Haller, Co-Founder of Maezen

RubyMoon uses its entire generated profit to invest in female entrepreneurs through micro-loans and thus empower women globally and giving them a chance to create financial independence for

themselves. Once a loan is repaid, it is invested in new credits for different women. Throughout its existence, the company has invested in over 2.200 women entrepreneurs:

“We work together with lendwithcare.org. Anyone can make a donation for £15 or €20 or whatever it is. And you can select the people that you want to invest in on the website. So it is really, really personal. There are also men on the websites that you can invest in, but we only invest in the women. So we pick those out ourselves at the end of each month. What happens is some money comes back to us and then we reinvest it again. And then we also make new loans entirely, from any profit we have made at the end of that month from selling swimwear.”

Interview of Jo-Anne Godden, Founder of RubyMoon

This leads to all three brands creating a societal culture. All three brands share that they create a culture of responsibility. Maezen further creates a culture of becoming a ‘Mäzen’, which translates to patron of the arts. RubyMoon highlights the ‘For Women Powered by Women’ spirit.

In addition to the social value, all three brands further create value for the end-user, by providing them with a modern, stylish fashion item that will last years. The products are further unique in the case of Refished due to the exclusive design of the raw material, or highly limited as in the case of Maezen, as each collection is limited and is not restocked once it has sold out:

“We deliberately decided on a limited number of items. In this way, we give the artwork a higher status due to the rarity, and the wearer gets the feeling of owning something special.”

Interview of Noah Neumair, Co-Founder of Maezen

Thus, Refished, Maezen, and RubyMoon are creating value for their stakeholders and their end-users. Furthermore, the three brands have implemented additional stakeholders in their business model that are usually not found in the fast fashion industry.

5.1.3.2 Fair wages, building local communities, and implementing transparency

While Refished and Maezen are privately owned for-profit organizations, RubyMoon is a not-for-profit organization:

“So, the reason we want to be a social enterprise and not for profit is because I think it is a this is a really valuable business model for the future. What we do with profit can literally change the world.”

Interview of Jo-Anne Godden, Founder of RubyMoon

However, as Refished and Maezen show, a sustainable business model does not necessarily have to be not-for-profit but can also be for-profit. Although, what all three brands share is their transparency. Since the brands are still relatively small, they engage personally with their

customers in case of questions. Questions about transparency or business practices are, in most cases, directly answered by the founder or co-founder.

The studied cases emphasize the fairness of the wage level and working conditions along the value and supply chain. The heads and employees behind the brand are further introduced and featured on the respective websites, which further implements transparency.

Another point that all studied companies share is that they are building local communities. Refished has further strengthened the already existing local community in the sheltered workshop where they produce their products. RubyMoon is building a local community of like-minded females in Brighton by hosting events and spreading awareness about its mission. Also, one of Maezen's goals is to build a community of artists and art lovers:

“That is the long-term goal: artists and art lovers come together and connect and share the same passion.”

Interview of Julian Haller, Co-Founder of Maezen

Building local communities can also benefit the firm. It can make their stakeholders feel like being part of something special, being part of a sustainable mission. The analysis shows that for that feeling to occur, however, the sustainable business model needs to be transparent and fair along its entire value and supply chain.

5.1.3.3 Social exclusion vs. benefits for stakeholders

The sustainable business models of the studied brands do not only lead to benefits for stakeholders but also negative social impacts. One of those negative social impacts is a social exclusion effect for consumers. For the brands to achieve their social or environmental mission, they also need to be financially profitable. This means that their price must cover their costs which leads to some consumers not being able to afford products of the studied brands, even though they might want to:

“If someone earns little, they will not be able to afford our bags, to be honest. That is, unfortunately, the truth.”

Interview of Sissi Vogler, Founder of Refished

As a result, all studied brands are targeting people with an above-average income which leaves the people who do not fall under this category being hardly noticed by the respective brands.

RubyMoon was the only studied brand that tried mitigating this problem by the introduction of a membership club and a planned leasing model.

Another negative social impact that all brands share is that their limited capacity can also lead to social exclusion within the group of beneficiaries. This means that even though Refished was able to help some landmine victims, there are still many landmine victims whom they cannot employ. There are many artists whom Maezen will not work together with, and there are a lot of women entrepreneurs that will not get a micro-loan from RubyMoon:

“There are many people who would also like to help or get work. So, there is still much capacity to help even more and to further progress, but for me being able to give them work, I also need to grow even more”.

Interview of Sissi Vogler, Founder of Refished

Furthermore, since the artists from Maezen and the women entrepreneurs from RubyMoon are handpicked, the biases of the executives might influence that decision:

“Sometimes, if I have got a choice, it will be women with children. Sometimes if I have got a choice, it will be groups of women. Because that can be more powerful because the women support each other. If there is someone that’s making clothes that’s also a little bit of a, you know, something that would make me want to invest in them more perhaps.”

Interview of Jo-Anne Godden, Founder of RubyMoon

Ultimately, the brands have to engage in a trade-off between negative social impact and positive social benefits. Undoubtedly, Refished, Maezen, and RubyMoon do have positive social benefits. All brands are improving their stakeholder’s quality of life. They are further supporting the personal and professional development of their stakeholders. Even though this results in some people being left out. Therefore, in a sustainable business model, it is essential to monitor and ensure that the social benefits outweigh the negative social impacts.

5.1.3.4 Visualized social stakeholder business model canvas

The figure below summarizes the key takeaways for each building block of the social stakeholder business model canvas, pointing out similarities and differences between the three players:

<p>Local Communities</p> <ul style="list-style-type: none"> Community of sewers in Cambodia (Refished) Community of international artists (Maezen) Community of sporty feminists (RubyMoon) 	<p>Governance</p> <ul style="list-style-type: none"> Transparency (all) Privately owned for-profit (Refished, Maezen) Not-for-profit (RubyMoon) 	<p>Social Value</p> <ul style="list-style-type: none"> Giving a job to landmine victims who would otherwise have difficulty finding work (Refished) Exposure and financial participation for aspiring artists (Maezen) Business loans for disadvantaged female entrepreneurs (RubyMoon) 	<p>Societal Culture</p> <ul style="list-style-type: none"> Culture of responsibility, awareness (Refished, RubyMoon, Maezen) Becoming a 'Mäzen' (Maezen) For Women Powered by Women (RubyMoon) 	<p>End-User</p> <ul style="list-style-type: none"> Modern, stylish and high-quality fashion item (all) Unique fashion item (Refished) Highly limited fashion item (Maezen)
<p>Employees</p> <ul style="list-style-type: none"> Fair Wages (all) Recognition (Refished) Fair Working Conditions (all) 		<p>Scale of Outreach</p> <ul style="list-style-type: none"> International shipping (all) 15-20% artist participation of net profits (Maezen) 30k Instagram follower (Maezen) All profits invested in micro loans (RubyMoon) 		
<p>(-) Social Impacts</p> <ul style="list-style-type: none"> Social exclusion of consumers due to hefty price tag (all) Social exclusion within the group of beneficiaries due to capacity limitations (all) Social benefits are dependent on firm performance (all) 			<p>(+) Social Benefits</p> <ul style="list-style-type: none"> Improving the quality of life of stakeholders (all) Recognition and personal development of stakeholders (all) Personal and professional development of female entrepreneurs through micro-loans (RubyMoon) 	

Figure 8: Filled out social stakeholder business model canvas

6 Discussion

Some findings are coherent with previous studies. Some findings were enriching and contradictory. Furthermore, the findings of this thesis were able to close some gaps in the research on sustainable business models and born-sustainable organizations in the fashion industry.

The triple layered business model canvas (Joyce & Paquin, 2016) has proven to be a valuable and suitable tool for analyzing sustainable business models. Although, issues came up when trying to fill out the environmental layer of the TLBMC. The authors originally intended this layer as a life cycle assessment that should measure the environmental impacts associated with all the stages of a product's lifecycle by using multiple environmental impact indicators. However, the studied companies did not possess enough relevant data that would have been necessary to conduct such a lifecycle analysis. Furthermore, even though it shows the gap in the current business model rationale and the tension within the respective individual layers, it can hardly show the tension between the three layers and some content in the individual layers turned out to be repetitive. As the layers are to be filled out individually, it can be challenging to identify the big picture and to view the three layers as holistic, as it is intended.

My findings also enrich the concept of the fashion pyramid (Doeringer & Crean, 2006) by showing where sustainable business models fit between fast fashion and haute couture collections. Indeed, when comparing my findings with the fashion pyramid, it becomes apparent that the fashion items produced by sustainable businesses possess characteristics of haute couture collections. The three studied companies have higher prices and higher quality fabrics. However, the fashion content and the product differentiation are lower than in haute couture and fast fashion collections.

As past research has mainly focused on how environmental aspects can be implemented in the business model, my findings show that it is important to also consider the social aspects of sustainability. This further confirms that it is crucial for born-sustainable businesses to consider and balance the triple bottom line. Furthermore, my findings show that also linear business models can be designed and implemented in a sustainable way, for example, by using environmentally friendlier alternatives such as recycled polyester and organic cotton as materials. However, just as in circular business models, the performance indicators need to be rethought and other important factors like maximizing the product's lifespan must be considered.

My findings further enrich the eight sustainable business model archetypes, introduced by N. M. Bocken et al. (2014). My results show that these archetypes should not be seen as set in stone but are very often combined in practice. The analyzed companies combine elements of different archetypes. In practice, this means that sustainable business models should be viewed holistically. RubyMoon, for example, has a circular business model and would therefore fall under the “create value from waste” archetype. At the same time, however, the company is not-for-profit and thus also falls under the “repurpose for society/environment” archetype. In summary, it can be said that the combination of different archetypes results in even greater positive ecological and social influence. The combination of different elements is often also necessary for the successful implementation of the sustainable business model.

The identified challenges are in accordance with the findings of Todeschini et al. (2017). My findings were especially able to confirm the importance of aligning the values along the supply chain. My findings further suggest that companies can have a positive environmental impact by educating their customers about sustainable practices regarding the product’s use-phase and by considering sustainable solutions for the product’s end of life. Furthermore, my findings suggest that a significant challenge for sustainable businesses operating in the fashion industry is to justify their higher prices, especially in the beginning when the brand is not known and established yet. This finding, however, also partly confirmed the often-criticized conclusions and propositions made by Friedman (2007) that ultimately, someone else ends up paying for the firm’s sustainability efforts, either due to higher prices for consumers or reduced shareholder return, or lower employee wages. My results also show that the evaluation of different trade-offs that are unavoidable is another major challenge of born-sustainable companies. A big trade-off is the social exclusion that results from the higher prices of the products. Challenges that these businesses have to overcome in order to successfully implement their sustainable business model in the fashion industry.

Ultimately, it has to be mentioned that even if fashion brands do have a sustainable business model, not every aspect can be sustainable, because also a sustainable business model requires consumers to buy the products, which means that those products need to be manufactured and distributed, which then results into carbon emissions. Thus, as of right now, fashion cannot be fully sustainable, but born-sustainable companies are mitigating many associated issues.

7 Conclusion

This thesis focused on answering the research question of how sustainable business models in the fashion industry can be implemented. Despite the boom that sustainable business models and born-sustainable companies in the fashion industry have experienced in recent years, they are a relatively recent phenomenon, and research is still in an early stage. Thus, certain gaps need to be closed.

Refished, Maezen, and RubyMoon represent companies with a successful sustainable business model operating in the fashion industry, enclosing a multiplicity of similarities and specific differences. The triple layered business model canvas was used as a theoretical lens to cover a sustainable business model's main areas and layers: economic, environmental, and social. Upon this, the following findings have been derived: Sustainability is at the core of the value proposition of a sustainable business model. Aligning the values along the supply chain and, thus, selecting partners that share the same values is essential. Furthermore, companies in the fashion industry with sustainable business models target a customer segment with an above-average income or a customer segment that is willing to pay a premium for sustainably made fashion items. This is due to higher costs associated with producing sustainable clothing. To justify these higher prices, sustainable business models deliver high-quality products. However, the higher costs also lead to inevitable trade-offs that firms must make and potential social exclusion. The firm's responsibility does not end once the product has been sold. The product's use-phase and end of life are two other essential building blocks in a sustainable business model. Ultimately, the derived benefits and revenues must outweigh the costs and the potential adverse social and environmental impacts.

Limitations of this study result from the analyzed companies. Firstly, this study is restricted to three companies, thus, limiting the data collection. Furthermore, two of the three analyzed brands are based in Vienna, Austria. Furthermore, Germany is one of the most important markets for all three brands. The study would have benefited from analyzing companies from more countries and cultures. Moreover, the companies are not identical in size and age. Future research should select a broader and more diverse sample. Furthermore, future research should replicate this study quantitatively to obtain a larger sample and more generalized findings. Future research that focuses on the challenges that fashion companies with a sustainable business model face and how they strategically react to them, after successfully implementing their business model, would further enrich the academic knowledge of born-sustainable businesses in the fashion industry.

8 Bibliography

Abernathy, F. H., Dunlop, J. T., Hammond, J. H., & Weil, D. (1999). *A stitch in time: Lean retailing and the transformation of manufacturing—Lessons from the apparel and textile industries*. Oxford University Press.

ABN AMRO. (2019). *Netherlands: Interest in sustainable clothing 2019*. Statista. <https://www.statista.com/statistics/1024593/consumer-interest-in-sustainable-clothing-in-the-netherlands/>

Allwood, J. M., Laursen, S. E., De Rodríguez, C. M., & Bocken, N. M. (2006). Well dressed. *The Present and Future Sustainability of Clothing and Textiles in the United Kingdom, 1*.

Banerjee, S. B. (2001). Corporate environmental strategies and actions. *Management Decision*.

Bansal, P. (2005). Evolving sustainably: A longitudinal study of corporate sustainable development. *Strategic Management Journal*, 26(3), 197–218.

Bansal, P., & Song, H.-C. (2017). Similar but not the same: Differentiating corporate sustainability from corporate responsibility. *Academy of Management Annals*, 11(1), 105–149.

Barnes, L., & Lea-Greenwood, G. (2006). Fast fashioning the supply chain: Shaping the research agenda. *Journal of Fashion Marketing and Management: An International Journal*.

Bocken, N. M., Short, S. W., Rana, P., & Evans, S. (2014). A literature and practice review to develop sustainable business model archetypes. *Journal of Cleaner Production*, 65, 42–56.

Bocken, N., Short, S., Rana, P., & Evans, S. (2013). A value mapping tool for sustainable business modelling. *Corporate Governance*.

Breuer, H., Fichter, K., Lüdeke-Freund, F., & Tiemann, I. (2018). Sustainability-oriented business model development: Principles, criteria and tools. *International Journal of Entrepreneurial Venturing*, 10(2), 256–286.

Brooks, J. (1979). FRIENDLY PRODUCT-LEVI-STRAUSS-AND-COMPANY. *New Yorker*, 55(39), 58.

Caniato, F., Caridi, M., Crippa, L., & Moretto, A. (2012). Environmental sustainability in fashion supply chains: An exploratory case based research. *International Journal of Production Economics*, 135(2), 659–670.

- Carr, A. (1968). Is business bluffing ethical. *Harvard Business Review*, 143, 155.
- Carroll, A. B. (1979). A three-dimensional conceptual model of corporate performance. *Academy of Management Review*, 4(4), 497–505.
- Carroll, A. B. (2021). Corporate social responsibility: Perspectives on the CSR construct's development and future. *Business & Society*, 60(6), 1258–1278.
- Chesbrough, H. (2007). Business model innovation: It's not just about technology anymore. *Strategy & Leadership*.
- Christopher, M., Lowson, R., & Peck, H. (2004). Creating agile supply chains in the fashion industry. *International Journal of Retail & Distribution Management*.
- Delmas, M. A., & Burbano, V. C. (2011). The drivers of greenwashing. *California Management Review*, 54(1), 64–87.
- Demirel, P., Li, Q. C., Rentocchini, F., & Tamvada, J. P. (2019). Born to be green: New insights into the economics and management of green entrepreneurship. *Small Business Economics*, 52(4), 759–771.
- Denzin, N. K. (2017). *The research act: A theoretical introduction to sociological methods*. Routledge.
- Dmytriyev, S. D., Freeman, R. E., & Hörisch, J. (2021). The relationship between stakeholder theory and corporate social responsibility: Differences, similarities, and implications for social issues in management. *Journal of Management Studies*, 58(6), 1441–1470.
- Doeringer, P., & Crean, S. (2006). Can fast fashion save the US apparel industry? *Socio-Economic Review*, 4(3), 353–377.
- Dottle, R., & Gu, J. (2022). The Real Environmental Impact of the Fashion Industry. *Bloomberg.Com*. <https://www.bloomberg.com/graphics/2022-fashion-industry-environmental-impact/>
- Elkington, J., & Rowlands, I. H. (1999). Cannibals with forks: The triple bottom line of 21st century business. *Alternatives Journal*, 25(4), 42.
- Ellen MacArthur Foundation. (2021). *Circular business models: Redefining growth for a thriving fashion industry*.

- Engert, S., Rauter, R., & Baumgartner, R. J. (2016). Exploring the integration of corporate sustainability into strategic management: A literature review. *Journal of Cleaner Production*, *112*, 2833–2850.
- Fehrer, J. A., & Wieland, H. (2021). A systemic logic for circular business models. *Journal of Business Research*, *125*, 609–620.
- Fletcher, K. (2013). *Sustainable fashion and textiles: Design journeys*. Routledge.
- Foxon, T. J., Bale, C. S., Busch, J., Bush, R., Hall, S., & Roelich, K. (2015). Low carbon infrastructure investment: Extending business models for sustainability. *Infrastructure Complexity*, *2*(1), 1–13.
- Freeman, R. E. (2010). *Strategic management: A stakeholder approach*. Cambridge university press.
- Friedman, M. (2007). The social responsibility of business is to increase its profits. In *Corporate ethics and corporate governance* (pp. 173–178). Springer.
- Gephart Jr, R. P. (2004). Qualitative research and the Academy of Management Journal. *Academy of Management Journal*, *47*(4), 454–462.
- Gwilt, A. (2020). *A practical guide to sustainable fashion*. Bloomsbury Publishing.
- Hahn, T., Pinkse, J., Preuss, L., & Figge, F. (2015). Tensions in corporate sustainability: Towards an integrative framework. *Journal of Business Ethics*, *127*(2), 297–316.
- Hahn, T., & Tampe, M. (2021). Strategies for regenerative business. *Strategic Organization*, *19*(3), 456–477.
- Hvass, K. K. (2014). Post-retail responsibility of garments—a fashion industry perspective. *Journal of Fashion Marketing and Management*.
- Jones, P., & Upward, A. (2014). *Caring for the future: The systemic design of flourishing enterprises*.
- Joyce, A., & Paquin, R. L. (2016). The triple layered business model canvas: A tool to design more sustainable business models. *Journal of Cleaner Production*, *135*, 1474–1486.
- Klein, N. (2009). *No logo: No space, no choice, no jobs*. Picador.

- Lantos, G. P. (2001). The boundaries of strategic corporate social responsibility. *Journal of Consumer Marketing*.
- Lewandowski, M. (2016). Designing the business models for circular economy—Towards the conceptual framework. *Sustainability*, 8(1), 43.
- Lueg, R., Pedersen, M. M., & Clemmensen, S. N. (2015). The role of corporate sustainability in a low-cost business model—A case study in the Scandinavian fashion industry. *Business Strategy and the Environment*, 24(5), 344–359.
- Masurel, E. (2007). Why SMEs invest in environmental measures: Sustainability evidence from small and medium-sized printing firms. *Business Strategy and the Environment*, 16(3), 190–201.
- Meixell, M. J., & Luoma, P. (2015). Stakeholder pressure in sustainable supply chain management: A systematic review. *International Journal of Physical Distribution & Logistics Management*.
- Morgan, L. R., & Birtwistle, G. (2009). An investigation of young fashion consumers' disposal habits. *International Journal of Consumer Studies*, 33(2), 190–198.
- Osterwalder, A., & Pigneur, Y. (2010). *Business model generation: A handbook for visionaries, game changers, and challengers* (Vol. 1). John Wiley & Sons.
- Pal, R., & Gander, J. (2018). Modelling environmental value: An examination of sustainable business models within the fashion industry. *Journal of Cleaner Production*, 184, 251–263.
- Pedersen, E. R. G., Gwozdz, W., & Hvass, K. K. (2018). Exploring the relationship between business model innovation, corporate sustainability, and organisational values within the fashion industry. *Journal of Business Ethics*, 149(2), 267–284.
- Porter, M. E., & Kramer, M. R. (2006). The link between competitive advantage and corporate social responsibility. *Harvard Business Review*, 84(12), 78–92.
- Quazi, A. M., & O'Brien, D. (2000). An empirical test of a cross-national model of corporate social responsibility. *Journal of Business Ethics*, 25(1), 33–51.
- Rubin, H. J., & Rubin, I. S. (2011). *Qualitative interviewing: The art of hearing data*. sage.
- Smith, N. C., & Rönnegard, D. (2016). Shareholder primacy, corporate social responsibility, and the role of business schools. *Journal of Business Ethics*, 134(3), 463–478.

- Strauss, A., & Corbin, J. (1998). *Basics of qualitative research techniques*.
- Taplin, I. M. (2014). Global commodity chains and fast fashion: How the apparel industry continues to re-invent itself. *Competition & Change*, 18(3), 246–264.
- Textile Exchange. (2021). *Recycled and conventional polyester fiber as share of total production worldwide from 2008 to 2020*. Statista. <https://www.statista.com/statistics/1250998/global-share-recycled-polyester-fiber/>
- Tiemann, I., & Fichter, K. (2016). Developing business models with the sustainable business canvas: Manual for conducting workshops. *Carl von Ossietzky University of Oldenburg: Oldenburg/Berlin, Germany*.
- Todeschini, B. V., Cortimiglia, M. N., Callegaro-de-Menezes, D., & Ghezzi, A. (2017). Innovative and sustainable business models in the fashion industry: Entrepreneurial drivers, opportunities, and challenges. *Business Horizons*, 60(6), 759–770.
- Van Marrewijk, M. (2003). Concepts and definitions of CSR and corporate sustainability: Between agency and communion. *Journal of Business Ethics*, 44(2), 95–105.
- Vogue Business. (2020). *Fashion's circular economy could be worth \$5 trillion* / *Vogue Business*. <https://www.voguebusiness.com/sustainability/fashions-circular-economy-could-be-worth-5-trillion>
- Yahoo Finance. (2022). *Global Ethical Fashion Market Opportunities and Strategies Report 2022-2030: Recycling And Upcycling, Increased Transparency Through Storytelling, Animal-Free Leather, Vegan Fashion*. <https://finance.yahoo.com/news/global-ethical-fashion-market-opportunities-083800892.html>
- Yin, R. K. (2009). *Case study research: Design and methods* (Vol. 5). sage.

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11 List of abbreviations

BMC	Business model canvas
CSR	Corporate social responsibility
TBL	Triple bottom line
TLBMC	Triple layered business model canvas

12 Appendix

Table 5: Secondary data collection

Type of data	Case	Title	Platform	Author	Date
Video	Refished	Refished im Pitch – 2 Minuten 2 Millionen	PULS4 (TV Channel in Austria)	PULS4	2020
Video	Refished	Erfolgsstory Refished – 2 Minuten 2 Millionen	PULS4 (TV Channel in Austria)	PULS4	2021
Video	Refished	REFISHED - das nachhaltige Modelabel // TV-Spot	YouTube	Refished	2021
Secondary interview	Refished (Sissi Vogler)	Angst führt zum Scheitern und Leidenschaft zum Erfolg!	StartupValley	Sabine Elsässer	2020
Secondary interview / video	Refished (Sissi Vogler)	balanceUP Interview mit Sissi Vogler	YouTube	balanceUP	2021
Secondary interview	Refished (Sissi Vogler)	Aus alt mach neu	La Loupe	La Loupe	2017
Podcast	Refished (Sissi Vogler)	#32 Jungunternehmerin: „Man darf sich trauen, aufs Herz zu hören“	Spotify	Salzburger Nachrichten (Die gefragte Frau)	2020
Online article	Refished	Mutter und Tochter fischen nach Ideen	Salzburger Nachrichten	Katharina Maier	2021
Podcast	Refished (Sissi Vogler)	Martha Schultz und Sissi Vogler	Spotify	Martha Schultz	2020

Online article	Refished	Vom alten Fischfuttersack zur modischen Badetasche	Mein Bezirk	Ulrike Kozeschnik-Schlick	2021
Online article	Refished	Neues Mode-Leben für bunte Wegwerfsäcke	Mein Bezirk	Sabrina Moriggl	2020
Secondary interview	Refished (Sissi Vogler, Isolde Vogler)	Meine wunderbare Tochter Sissi	Welt der Frauen	Petra Klikovits	2022
Online article	Refished	Erster Refished-Shop eröffnet	Leadersnet	D. Mikkelsen	2020
Online article	Refished	Upcycling-Startup Refished: Faire Taschen aus Kambodscha	Brutkasten	Brutkasten	2020
Online article	Refished	Refished: Wiener Gründerin lässt in Kambodscha nachhaltige Taschen nähen	Trending Topics	Sara Grasel	2020
Online article	Refished	Öko-Taschen Startup Refished eröffnet eigenen Shop in Wien	Trending Topics	Sara Grasel	2020
Online article	Refished	REFISHED: Upcycling aus Wien made in Kambodscha	Jungbleiben	Jungbleiben	2015
Online article	Refished	Refished: Wienerin erstellt Taschen aus Müll	Kronen Zeitung	Viktoria Graf	2019
Online article	Refished	A Fairling Love Story: How Refished Got 22 Requests From Stores All Over Europe	Fairling	Christina H.	2021
Online article	Refished	Abfallprodukte	Falter	Nathalie Großschädl	2021

Internal document	Refished	Fischen Sie schon Fair?	Refished	Refished	2019
Website	Refished	Unsere Prinzipien & Werte	Refished	Refished	n.a.
Website	Refished	Die Refished Story	Refished	Refished	n.a.
Website	Refished	People	Refished	Refished	n.a.
Podcast	Maezen (Julian Haller, Noah Neumair)	Maezen Clo – Building a Streetwear Brand	Spotify	Jack William	2022
Online article	Maezen	Maezen – Vorstellung	Achterbahn Magazin	Cley Freude	2022
Online article	Maezen	Das Wiener Streetwear-Label Maezen	1000things	Alissa Hacker	2021
Internal document	Maezen	Strategy Paper	Maezen	Maezen	2021
Website	Maezen	The Brand	Maezen	Maezen	n.a.
Website	Maezen	Sustainability	Maezen	Maezen	n.a.
Website	Maezen	Embroidery & Art	Maezen	Maezen	n.a.
Secondary interview	RubyMoon (Jo-Anne Godden)	Swimwear from the future: Interview with Jo-Anne Godden from Ruby Moon	Medium	Medium	2021

Secondary interview	RubyMoon (Jo-Anne Godden)	Let's talk about swimwear (and more)!	Grossvrtig	Alf-Tobias Zahn	2019
Online article	RubyMoon	RubyMoon Makes Gym-To-Swim Wear Using Recycled Fabric	Treehugger	Katherine Martinko	2018
Podcast	RubyMoon (Jo-Anne Godden)	Jo Godden of RubyMoon – circular fibres for activewear	Spotify	Catherine Weetman	2022
Online article	RubyMoon	The One-Stop Clothes Shop For People Who Care About The Environment	Forbes	Lucy Sherriff	2019
Online article	RubyMoon	Ruby Moon are making fashion waves	Care without carbon	Hayley Carmichael	2019
Podcast	RubyMoon (Jo-Anne Godden)	The Story of RubyMoon / Sussex Entrepreneurship	Spotify	Georgina Smith, University of Sussex	2021
Video	RubyMoon	Introducing RubyMoon / Meet Jo Godden	YouTube	Baroness Verma	2016
Video	RubyMoon	Believe in your business, even when it's hard / Human Lending Library	YouTube	Baroness Verma	2016
Secondary interview / video	RubyMoon (Jo-Anne Godden)	Fashion Designer Jo Godden from Ruby Moon Gym to Swim wear, for Eye Storm TV	Youtube	EYESTORM TV	2019
Online article	RubyMoon	Turning Used Fishing Nets into Swimwear: Founder of RubyMoon visits AUB	Arts University of Bournemouth	Arts University of Bournemouth	2019
Online article	RubyMoon	Activewear for activists	Atlas of the Future	Becca Warner	2020

Online article	RubyMoon	What Is Sustainable Swimwear and Why Should I Buy It?	Compare Ethics	Emily Lavinia	2020
Online article	RubyMoon	Circular Materials for Sustainable Swimwear	Future Fashion Factory	Sarah Parkin	2021
Secondary interview	RubyMoon (Jo-Anne Godden)	RubyMoon: A Social Enterprise for Women Powered By Women	We Who Do	Leah Montebello	2021
Online article	RubyMoon	Stories of brands that decided to make the difference – Be the change awards (1)	Dress Ecode	Dress Ecode	2019
Website	RubyMoon	Membership	RubyMoon	RubyMoon	n.a.
Website	RubyMoon	Impact	RubyMoon	RubyMoon	n.a.

Table 6: Coding table

Themes	Categories	Codes	Example quotations
Economic business model canvas	Value proposition	Sustainable, social, and environmentally friendly	<p><i>“REFISHED - FAIR FASHION WITH ♥”</i></p> <p><i>“Our responsibility goes beyond legal and regulatory requirements. Lowering environmental impact is at the heart of our DNA, it is our guiding principle for innovation and growth.”</i></p>
		High quality	<p><i>“It is important to us that people associate us with high quality. Our products are not cheap. They can be considered premium products. Furthermore, as we are trying to support art and artists, it was of utmost importance for us that the</i></p>

			<i>product is highly durable so that it can be worn for years.”</i>
		Durable to prolong life	<i>“The result is a high-quality, durable material that is certified to be twice as strong: prolonging the life of your clothing is the greatest environmental impact that you can make with regards to clothing.”</i>
		Trendy	<i>“The products are super colorful and trendy. You don’t see such bags very often”.</i>
		Female empowerment	<i>“Cleaning up the oceans and empowering women entrepreneurs around the world, since 2010.”</i>
	Customer segments	Above-average income	<i>“The issue is that our pricing is actually what it costs to make things ethically and properly, pay people a decent wage, pay for decent fabrics that are going to last ten years. Thus, we target a customer segment that is willing to spend a premium price for such a product.”</i>
		Sustainably minded	<i>“My customers are people who care about sustainability.”</i> <i>“Our customer is definitely what they call the Green Pioneer or the early adopter.”</i>
		Trendsetters	<i>“But I also have a lot of customers, especially from the past, when the topic wasn't on everyone's lips. These are just people who like to stand out or be different. So, people who like to wear a bright splash</i>

			<i>of color or whatever, who are then often trendsetters in their community.”</i>
		B2B: CSR cautious companies	<i>“In the B2B market, we conduct upcycling projects for large companies, where much waste is generated, for example advertising waste or advertising tarpaulins that are no longer needed. Those companies are usually quite environmentally conscious and often pioneers in terms of CSR.”</i>
	Customer relationship	Social Media	<i>“Social media is extremely important to reach your customers and those who are not customers yet. Especially Instagram.”</i>
		E-Mail	<i>“Sign up with your email address to stay informed about all news.”</i>
		Physical store	<i>“The store in Vienna is also kind of a tool for customer relationship. Because many regular customers live in Vienna, and they really like the fact that we have the shop now and they like to come here and they can see all the products we have right away.”</i>
		Community activities	<i>“We have a full moon swim every month, and we have over 120 people coming to that each time. This is great. Seeing so many like-minded people together.”</i> <i>“In the long term, we want to establish a patrons club where we can effectively connect via Discord, Telegram, or something on a personal level.”</i>

	Channels	Web shop	<i>“A web shop is a must have for any fashion brand in my opinion. You get immediate access to international markets.”</i>
		Retailers	<i>“We are now available in over 50 retail stores in several countries.”</i>
		Physical Store	<i>“In 2020 we have opened our own store in Vienna”.</i>
		External, ethical, and sustainable marketplaces	<i>“We use external marketplaces. So sustainable environmental ethical marketplaces.”</i>
	Key resources	Partnerships and network	<i>“We have had strong partnerships with various NGOs for many years now. I think our network is quite strong, we are well connected.”</i>
		Contracts	<i>“What I have noticed when setting up a brand is that you do need many contracts. Basically, for almost every stakeholder.”</i>
		Know-how	<i>“When you are in business for over 10 years you get to know a lot of things.”</i>
		Loyal customers	<i>“We took much time, in the beginning, to perfect our products in order to achieve the highest possible quality and to have a product that is long-lasting, to build up a small stock of regular customers.”</i> <i>“We have some customers who purchase something from every drop.”</i>
	Key activities	Sustainably designing	<i>“Designed & manufactured according to circular, regenerative, and slow fashion principles, all our pieces are versatile,</i>

			<p><i>affordable, and easily combined since they are produced as a capsule collection. This reduces waste and consumption allowing us to “Do more with Less’ pieces.”</i></p> <p><i>“The design choices are obviously limited, as we are an upcycling company. Thus, the only thing I do is that with the large products, I say, for example, I would like the fish motifs that are on the fish feed bags to be on the front of my product, but whatever comes on the back does not matter. Then, for example, the back just consists of the writing from the original material.”</i></p>
		Tracking environmental and social impact	<i>“Every year I am evaluating how many cement and fish feed bags we have processed and thus saved from landing in the trash.”</i>
		Building a community	<i>“In the long term, we want to establish a patrons club where we can effectively connect via Discord, Telegram, or something on a personal level.”</i>
	Key partners	Carriers	<i>“As we operate a web shop we also need a carrier for shipping and when you want to make a sustainably choice it’s not so easy unfortunately.”</i>
		NGOs	<i>“The fabrics and garments (...) are certified by The Princes Accounting for Sustainability Project to produce 42% less carbon emissions as they journey</i>

			<i>from drawing board to final product.”</i>
		Sustainable suppliers	<i>“We carefully select suppliers and stakeholders so that we all follow the same standards and share the same vision.”</i>
		Production	<i>“Not only do we care about humans, but we also care about our planet. That is why we collaborate with manufacturers who take responsibility for the environment and produce apparel in a sustainable and ethical manner.”</i> <i>“I am producing my products in a sheltered workshop in Cambodia. Physically disabled mine victims, who would otherwise have struggled to find a job, work in this workshop under fair conditions and for a fair wage.”</i>
		Embroidery	<i>“We don't print! No, we apply complex embroidery that makes the artworks even more detailed! It takes more than 45.000 stitches and over one hour to finalize a single design. All that is made in Germany with love.”</i>
		Artists	<i>“We collaborate with some of the most talented artists all around the world to bring their artworks through complex embroidery onto streetwear. The clothes become the canvas and the art is exhibited by you.”</i>

		Female entrepreneurs	<i>“We convert the net profits into business loans for disadvantaged female entrepreneurs (...) empowering ever increasing numbers of women.”</i>
		Other importers	<i>“For us to enable ship transport, we have to go the extra mile. You must buddy up with someone to fill half a container, do those kinds of things.”</i>
	Costs	Increased production and operating costs	<i>“The issue is that our pricing is actually what it costs to make things ethically and properly, pay people a decent wage, pay for decent fabrics that are going to last ten years.”</i>
		Free repairments to prolong life	<i>“If one of our products breaks, you can return it to us, and we will fix it for free. This is part of our 10-year product guarantee.”</i> <i>“If any product is defective, you can bring it back or send it to us, and we will fix it and send it back, or it will be picked up again. That is part of our service, and we do not charge anything for that. One of our goals is to maximize the life of the product.”</i>
		Financial participation of artists	<i>“We currently give the artists between 15 and 20 percent of the net profit. Since our production costs are quite high, unfortunately, we cannot offer them more as of right now.”</i>
	Revenues	Sales	<i>“The vast majority of the revenue comes from the sales to consumers.”</i>

		Corporate branding	<i>“Are you looking for a special gift for your customers and employees? Or a special gift for your wedding? Then you are right with us! We can provide almost every REFISHED product with your logo.”</i>
		B2B upcycling projects	<i>“In the B2B market, we conduct upcycling projects for large companies, where much waste is generated, for example advertising waste or advertising tarpaulins that are no longer needed. Those companies are usually quite environmentally conscious and often pioneers in terms of CSR.”</i>
		Membership club	<i>“I am aware of potential social exclusion, and that is why we have launched a membership club so that people can use that as like a bank kind of thing, that they can put a little bit of money aside every month so that they can then afford to purchase our garments. But they are not forced to buy anything, they can also just leave their money in their account.”</i>
		Leasing model	<i>“(…)we will be having a leasing model at some point in the future”.</i>
Environmental life cycle business model canvas	Functional value	1.5sqm of cement or fish feed bags	<i>“A bag pack or bag consists of approximately 1.5sqm of cement or fish feed bags”.</i>
		350/220gsm organic cotton	<i>“Made from 350gsm organic cotton”.</i>
	Materials	Eco-friendly materials	<i>“Our manufacturer works with 100% organic cotton as well as other recycled</i>

			<i>materials. If you choose organic cotton over conventional, you help saving water, energy and carbon emissions. Further, our manufacturer is certified (GOTS, GRS, PETA, OCS) for its healthy environmental practices and recognized across the entire industry.”</i>
		Upcycled materials	<i>“The fabric used in all our garments is made with ECONYL® yarn, a 100% regenerated nylon fibre made from nylon waste otherwise polluting the Earth, like fishing nets, fabric scraps, carpet flooring and industrial plastic rescued from all around the world.”</i>
	Production	Fair wages	<i>“I am producing my products in a sheltered workshop in Cambodia. Physically disabled mine victims, who would otherwise have struggled to find a job, work in this workshop under fair conditions and for a fair wage.”</i>
		Monitoring	<i>“European manufacture is really important because we do not want to be importing from Asia, among other factors due to carbon reasons. So, it had to be within Europe and had to allow for small quantities. We are thinking of relocating the business to Barcelona anyway. So, it is a bit of a no-brainer to try and choose somewhere</i>

			<i>where we can monitor our production easily.”</i>
	Supplies and outsourcing	Water	<i>“Before we can use the cement or fish feed bags, they need to be cleaned since they are used. They are washed with soap and water, sometimes just water. It depends on how dirty they are, but we try to minimize the usage of water and cleaning supplies.”</i>
		Energy	<i>“Our manufacturing and digital platform are 100% powered by renewable energy!”</i>
		Dyes	<i>“The GOTS dye is therefore much more controlled and less harmful than a conventional synthetic dye. Nevertheless, it remains a synthetic dye because the products used are not 100% natural.”</i>
	Distribution	Eco-friendly packaging	<i>“On the one hand, we try to reuse cardboard boxes. Sometimes I actually go into the garbage room and see if I can find nice, intact boxes. If so, then I will take it and write on the outside of the package something like ‘I am reused’. That helps a little to make shipping more sustainable.”</i> <i>“Our Gym To Swim ® pieces are sent to you in 100% recycled and biodegradable mailing bags.”</i>
		Sea/land transport	<i>“For us to enable ship transport, we have to go the extra mile. You must buddy up with someone to fill half</i>

			<i>a container, do those kinds of things.”</i>
		Air cargo	<i>“There is always room for improvement. As with us, for example, the transport route. We do air cargo because we still have far too little volume for ship transport to pay off now.”</i>
	Use phase	Educating customer	<i>“On our website, as well as the products’ laundry tag, it states: ‘Wear often and wash less for a happy environment.’ This might be a small thing, but if it helps get a few people to reconsider their habits, this is already great. This not only extends the life of our products but also helps to save water and energy.”</i>
		Free repairs	<i>“If one of our products breaks, you can return it to us, and we will fix it for free. This is part of our 10-year product guarantee.”</i> <i>“If any product is defective, you can bring it back or send it to us, and we will fix it and send it back, or it will be picked up again. That is part of our service, and we do not charge anything for that. One of our goals is to maximize the life of the product.”</i>
	End-of-life	Cradle-to-cradle	<i>“Some people also send us swimwear. It does not have to be our swimwear. It can be anyone’s swimwear because we are putting it back in the loop. And for doing so, they get 5% off a new product.”</i>

		Reuse	<p><i>“You can always find new use cases for old and broken things. For example, one of my first bags broke at some point, but it was still useable. Now I am using it as a wastepaper bag, which is a completely new use case as originally intended. Ever since, I have realized that we communicate this more intensively on social media. This not only applies to our products, but many everyday things can be reused instead of thrown away.”</i></p>
	Environmental impacts	Water usage	<p><i>“Before we can use the cement or fish feed bags, they need to be cleaned since they are used. They are washed with soap and water, sometimes just water. It depends on how dirty they are, but we try to minimize the usage of water and cleaning supplies.”</i></p>
		No renewable energy	<p><i>“Actually no, we do not use renewable energy. But to be honest our brand has just been founded and we still have room for improvements, obviously. This is definitely one of them.”</i></p>
	Environmental benefits	Waste reduction	<p><i>“In total, we process around 5000 square meters of cement and fish feed bags every year. 5000 square meters of a material that would otherwise likely end up in the trash.”</i></p> <p><i>“The fabric used in all our garments is made with ECONYL® yarn, a 100%</i></p>

			<i>regenerated nylon fibre made from nylon waste otherwise polluting the Earth, like fishing nets, fabric scraps, carpet flooring and industrial plastic rescued from all around the world.”</i>
		Less carbon emissions	<p><i>“The fabrics and garments (...) are certified by The Princes Accounting for Sustainability Project to produce 42% less carbon emissions as they journey from drawing board to final product.”</i></p> <p><i>“Growing organic cotton produces up to 94% less greenhouse gas emissions.”</i></p>
Social stakeholder business model canvas	Social value	Supporting disadvantaged social groups	<p><i>“Women in developing countries are the most disadvantaged without financial services for females. Gender inequality promotes poverty: 60% of chronically hungry people are women & girls. According to the United Nations, when women are able to gain incomes, money is more likely to be spent on nutrition, housing and education, consequently, children and communities thrive.”</i></p>
	Employees	Fair wages	<i>“I am producing my products in a sheltered workshop in Cambodia. Physically disabled mine victims, who would otherwise have struggled to find a job, work in this workshop under fair conditions and for a fair wage.”</i>

		Fair working conditions	<p><i>“Sooner or later, we want to produce in Portugal, but we have not found a manufacturer that is GOTS certified and affordable for us. When people hear made in Bangladesh, they kind of think of fast fashion and bad working conditions. But if you look at it differently, made in Bangladesh does not only have negative sides. You create jobs, and the GOTS certification also confirms that the people work there under fair conditions.”</i></p>
		Recognition	<p><i>“I want to convey that the social component really does exist at Refished. I did it in such a way that I let the seamstress sign her name on every product, it also says where it was made and the material it is made of. The people are also presented on my homepage.”</i></p>
	Governance	Transparency	<p><i>“What you do need to be is totally transparent. If people are not transparent, nobody really knows what is going on in any organization.”</i></p> <p><i>“We have recently visited our embroidery partner in Germany and have filmed content there so our customers can see the embroidery process. Later this year we also want to visit our production site and do the same. Showing your customers how the products are made is an important step towards total</i></p>

			<i>transparency, in my opinion.”</i>
		Privately owned for-profit	<i>“We are privately owned, all the money invested comes from our own pocket.”</i>
		Not-for-profit	<i>“The world’s only completely circular, not-for-profit swim and active wear brand.”</i>
	Local communities	Community of beneficiaries	<i>“That is the long-term goal: artists and art lovers come together and connect and share the same passion.”</i>
		Community of like-minded people	<i>“By wearing maezen you become part of our community (#beamaezen) - a community where individuals support each other and share a common passion for art and fashion.”</i>
	Societal culture	Culture of responsibility and awareness	<i>“What we want to do is spread awareness. Awareness about the issues we have chosen to tackle.”</i>
		Becoming a benefactor	<i>“We are a social enterprise for women powered by women.”</i> <i>“You become a ‘patron of the arts’ or as it is called in German: ‘Mäzen’.”</i>
	Scale of outreach	International shipping	<i>“Free international shipping!”</i> <i>“We ship our products worldwide!”</i>
		Social media exposure	<i>“We do not just offer the artists a one-time commission and say thank you, that is it. We offer artists a lot more than that. We do all the marketing. We are constantly pushing them on our channels, even weeks</i>

			<p><i>after the drop. They get exposure through us. They get a community through us. Through us, they get a feature on the website and much more than that. The monetary component is only a small part of what we offer our artists.”</i></p>
		Using profits for a social cause	<p><i>“By investing 100% of our profits in business loans for women, financial independence is allowed, leading women and their families to a brighter future.”</i></p>
	End-users	Modern, stylish, high quality, sustainably produced	<p><i>“Purchasing the hoodie from Maezen felt like the right thing to do for me. It was expensive, but I am willing to pay that, knowing that with this purchase, I support artists and considering that the product is sustainably made from organic cotton.”</i></p>
		Unique fashion item	<p><i>“(…) then they are sewn together exactly according to my ideas, which makes each product unique.”</i></p>
		Highly limited fashion item	<p><i>“We deliberately decided on a limited number of items. In this way, we give the artwork a higher status due to the rarity, and the wearer gets the feeling of owning something special.”</i></p>
	Social impacts	Social exclusion if consumers	<p><i>“If someone earns little, they will not be able to afford our bags, to be honest. That is, unfortunately, the truth.”</i></p>
		Social exclusion of beneficiaries	<p><i>“There are many people who would also like to help or get work. So, there is still much capacity to help even</i></p>

			<p><i>more and to further progress, but for me being able to give them work, I also need to grow even more.”</i></p> <p><i>“Sometimes, if I have got a choice, it will be women with children. Sometimes if I have got a choice, it will be groups of women. Because that can be more powerful because the women support each other. If there is someone that's making clothes that's also a little bit of a, you know, something that would make me want to invest in them more perhaps.”</i></p>
		Depending on financial performance	<p><i>“It depends on how much we have to invest at the end of the month. Sometimes we can just invest in one woman. It all depends on how much profit we make.”</i></p>
	Social benefits	Improving quality of life of stakeholders	<p><i>“I am producing my products in a sheltered workshop in Cambodia. Physically disabled mine victims, who would otherwise have struggled to find a job, work in this workshop under fair conditions and for a fair wage.”</i></p> <p><i>“People with disabilities who would not find a job otherwise have found one through Refished.”</i></p>
		Recognition of stakeholders	<p><i>“All the artists we work with are artists that want to express a particular idea or a powerful message. We believe that their ideas and messages deserve greater</i></p>

			<p><i>visibility. Together with you, Maezen gives them a voice. Their art gains more attention and the artist can inspire a much larger audience.”</i></p>
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