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Final Degree Project

Fast and circular fashion: a comparison on sustainability of two fashion retail business models

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Abstract and Key Words

Fast and circular fashion: a comparison on sustainability of two fashion retail business models.

The topic of fashion and sustainability is nowadays very salient thanks to organizations like the Ellen MacArthur Foundation or Greenpeace. Social movements like Greta Thunberg's Fridays for future or the #PayUp campaign have also been key to make society conscious of the social and environmental impacts of the fashion industry, mainly caused by the fast fashion business model of many retailers and fashion companies.

The complexity of the link between fashion and sustainability leads to the following research questions: Is the fashion industry as we know it today sustainable? Which are the similarities and differences in terms of sustainability of fashion retail companies with a fast fashion business model and fashion retail companies with a business model related to the circular economy?

The theoretical part of this Final Degree Project, which presents the Global Value Chain of the fashion industry, sustainability, and the concept of circular economy, provides the tools to understand the sustainability status-quo of the fashion industry. In the applied part of the project, we compare the fashion retailers Kiabi and Percentil from a business perspective, and in terms of sustainability, to understand how they resemble and differ from each other.

Key Words: sustainability, fast fashion, circular economy, business model, fashion industry

Moda rápida y circular: comparación en sostenibilidad de dos modelos de negocio minorista de moda.

El tema de la moda y la sostenibilidad es muy relevante actualmente gracias a organizaciones como the Ellen MacArthur Foundation o Greenpeace. Los movimientos sociales como Fridays for future de Greta Thunberg, o la campaña #PayUp también han sido claves para concienciar a la sociedad del impacto social y medioambiental de la industria de la moda, principalmente causado por el modelo de negocio de moda rápida que emplean muchas compañías minoristas de moda.

La compleja relación entre la moda y la sostenibilidad lleva a las siguientes preguntas de investigación: ¿La industria de la moda de hoy en día es sostenible? ¿Cuáles son las similitudes y diferencias, en términos de sostenibilidad, de compañías minoristas con un modelo de negocio de moda rápida, y de compañías minoristas de moda con un modelo de empresa relacionado con la economía circular?

La parte teórica de este Trabajo de Final de Grado, que presenta la Cadena de Valor Mundial de la industria de la moda, la sostenibilidad, y la economía circular nos da las herramientas para entender el status-quo de la sostenibilidad de la industria de la moda. En la parte práctica del trabajo se compara a Kiabi y a Percentil desde una perspectiva empresarial y de sostenibilidad para entender en qué puntos se parecen y en cuales son distintos.

Palabras Clave: sostenibilidad, moda rápida, economía circular, modelo de empresa, industria de la moda

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INTRODUCTION

Introduction

The topic of fashion and sustainability is nowadays very salient thanks to organizations like the Ellen MacArthur Foundation or Greenpeace. Social movements like Greta Thunberg's Fridays for future or the #PayUp campaign have also been key to make society conscious of the social and environmental impacts of the fashion industry, mainly caused by the fast fashion business model of many retailers and fashion companies.

This has led several important retailers like Inditex's Zara, Uniqlo, or H&M, considered the top 3 retailers in 2019 (Statista, 2020), to come up with lines and collections of sustainably produced garments in order to have a brand image that appears to the public as more ethical and environmentally respectful. However, it is possible to debate that this is just "greenwashing", understood as the use of sustainability for marketing purposes, instead of changing their business from its core (McKinsey & Company, 2019), due to the fact that these companies still produce their other non-sustainable brands and collections. In other words, these companies were not conceived to be sustainable, as they are fast fashion retailers, and unless they drastically change their business model, they will continue perpetuating the negative consequences of their activities.

This Final Degree Project (FDP) intends to analyze from a business perspective, and in terms of sustainability, the difference between fashion retail companies conceived from the concept of circular economy, and fast fashion retailers.

Research Questions, Hypothesis and Objectives

The complexity of the link between fashion and sustainability leads to the following research questions (Q): (Q1) Is the fashion industry as we know it today sustainable? (Q2) Which are the similarities and differences in terms of sustainability of fashion retail companies with a fast fashion business model and fashion retail companies with a business model related to the circular economy?

From these questions we infer three hypotheses (H) that will be confirmed or discarded through the analysis performed throughout the FDP. While H1 tries to answer Q1, H2 and H3 are focused on Q2.

- H1: the fashion industry as we know it today is unsustainable, and fast fashion business models are at the root of the unsustainability of the fashion industry.
- H2: fast fashion retail business models are not sustainable, and are limited to just do greenwashing.
- H3: fashion retail companies conceived from a circular economy perspective are sustainable because the circularity of their business model makes them sustainable.

In order to check these hypotheses, the objectives of the project are the following:

- To understand the concept of Global Value Chain, its structure, and its different parts in the fashion industry.
- To define sustainability and to explain its multidimensionality, and the concept of Triple Bottom Line.
- To identify the global environmental, social, and economic issues posed by the fashion industry.
- To explain in detail what is the circular model of economy, its parts, and its multiple benefits.
- To identify the different business models that may arise in the fashion retail sector due to the circular economy concept.
- To study the value chains of two different fashion companies: Kiabi (Kiabi Europe LLC), a fast-fashion retail company; and Percentil (Casi Nuevo Kids SL), an on-line retail seller of second-hand fashion items.
- To perform a PESTEL analysis and a Porter's five forces analysis to Kiabi and to Percentil, to understand the external environment of the companies
- To do a Triple Layer Business Model Canvas analysis for both companies, to understand the sustainability of both business models.

Material and Methodology

For the theoretical part of this project secondary data has been used. This data has been obtained from private sources such as commercial databases and public sources – like reports international organizations like United Nations (UN), or the Ellen MacArthur Foundation, or Non-Governmental Organizations (NGOs) as Greenpeace – academic articles about the different topics or webpages specialized in fashion or sustainability. This data is qualitative and quantitative, depending on the source. The applied part of the project is based on primary and secondary data. The latter was obtained from private and public sources, such as reports and press releases of the two companies, provided by Tal Cual Comunicación, the communication agency of Kiabi and Percentil. The primary data used in this part of the project is an interview with Lourdes Ferrer from Percentil, that provided qualitative data about company. We tried interviewing a responsible person from Kiabi but unfortunately there was no availability. We chose to analyze these two fashion retail companies because Kiabi is a clear example of an international fast fashion retailer, whereas Percentil is a good illustration of a fashion retailer with a circular economy business model.

The methodology that answers the research questions and that will be key to confirm or reject the three hypotheses proposed above is now further explained. We firstly proceed with the theoretical framework of the project, which consists of three parts: First, the development of the concept of value chain, its parts, and specifically the structure of the global value chain in the fashion industry. Secondly, we delve on the concept of sustainability, how it is related to the fashion industry, and the sustainability problems that arise from fashion. And thirdly, the

explanation of the concept of the model of circular economy, its benefits, and which new types of business models arise from this concept, specifically in the fashion industry. Once the theoretical part of the project is complete, and having such a precise knowledge of the topic, the process of the practical part will be presented, which consists of the analysis of the sustainability of the business models of Kiabi Europe, and Percentil. This will include first the internal analysis of the companies through the value chain analysis of each one of them, followed by the external analysis for both companies through a PESTEL analysis and a Porter's five forces analysis. Finally, thanks to the information gathered through the Value Chain analysis, the PESTEL and Porter's five forces analysis, a Triple Layer Business Model Canvas will be constructed for the two companies, which will close the project by allowing us to clearly understand their business models and their sustainability.

I- THEORETICAL FRAMEWORK

The first section will present the theoretical framework of this project, which is subdivided in three parts. The first part consists of the study of the Global Value Chain (GVC) of the fashion industry, and analyzes its different activities, its governance, geographic scope and upgrading. Furthermore, this indicates the focus of the project on companies in the retail sector of the GVC of the fashion industry. Secondly, the concept of sustainability and its different dimensions are presented as well as the concept of the Triple Bottom Line, the economic, social and ecological sustainability problems arising from the fashion Industry globally, and the importance of the 2030 Agenda for sustainable development to solve these three types of sustainability issues – developed in Annex 1. Finally, the third part introduces the concept of circular economy, its parts, the multiple benefits and opportunities it provides, and of the different types of business that may be created to implement the circular economy, giving special attention to the business models in the fashion industry based on the concept of the circular economy. The theoretical framework will be useful to answer the first research question, as well as to check if H1 is correct or not.

1.1- The Global Value Chain in the fashion industry, and fashion retail

This section plays with the relationship between two concepts: globalization, and the fashion industry. On the one hand, globalization can be defined as the interdependent relationships between people from different places among the world, which in some cases implies the elimination of barriers for the movements of goods, services, capital, technology and people from country to country (Daniels, Radebaugh & Sullivan, 2014). On the other hand, the fashion industry is understood as the industry that includes all the activities that allow the consumption of any product of personal use such as clothes, shoes, or complements, to which customers have access under the label of a fashion brand (García-Torres & Rey-García, 2020). In this section, we will understand how globalization affects the way industries and companies work by presenting the concept of the GVC. After that, there will be a focus on the GVC in the fashion industry, and an in-depth analysis of its activities, governance, upgrading and geographic scope.

1.1.1- Global Value Chain: definition and importance

The value chain can be explained as the different activities executed by a company in order to implement their strategy. Furthermore, it allows managers to depict value creation with a step-by-step model that includes all primary activities, which are the backbone of the business, and support activities. The former includes the design of the products, manufacturing operations, outbound logistics, which include distribution, inventory, warehousing and transport logistics, marketing, and after-sales services. The latter is formed by the provision of materials and equipment, the management of human resources, the control of systems and solutions, and the company's infrastructure, also known as the overhead functions. All these activities are developed in Figure 1, from Annex 9 (Figure A9.1) (Daniels, Radebaugh & Sullivan, 2014). The activities of a value chain can be done by one firm or by several firms (Gereffi & Fernandez-Stark, 2011), and it may be concentrated, so in only one place, or dispersed among different locations (Daniels, Radebaugh & Sullivan, 2014). Furthermore, because of globalization, the activities in the value chain are usually done in global inter-firm networks. The GVC framework is useful to establish the organization of global industries through the examination of the structure and dynamics of the variety of actors in the industry.

This framework consists of four dimensions. Firstly, an analysis of the input-output structure, where there is an identification of the main activities of the GVC, and the structure of companies under each segment of the value chain. Secondly, a study of the geographic scope of the GVC, so the mapping of where each activity of the GVC takes place. In third place, a governance analysis is done to understand the power exerted from some actors towards others. Fourthly, an inquiry about the institutional context takes place, meaning the observation of the local economic, social and institutional context, and the enumeration of all the different stakeholders involved in the value chain. Finally, in addition to these four dimensions, it is possible to do a study of upgrading, or the way in which firms, countries or regions move to higher value activities in the GVC with the purpose of increasing benefits by being involved in global production (Gereffi & Fernandez-Stark, 2011). Although all these steps are relevant to do a thorough scanning of the GVC of an industry, section 1.1.2 will be centered on just the first dimension for the fashion industry, and section 1.1.3 will provide an analysis of dimensions two and three. Dimensions one to three are the most important for our analysis, but Annex 2 will include the fourth, and also of the upgrading of the GVC and an explanation of the main lead companies of the fashion industry.

1.1.2- Activities or input-output structure of the Global Value Chain of the fashion industry

In the literature there are many different illustrations on how the fashion industry's value chain looks like. Most of them include the activities related to: raw materials, components, final products, and marketing and sales (Gereffi & Fernandez-Stark, 2011; Bair, Frederick & Gereffi, 2016; UN Environment Program, 2020).

The section about raw materials refers to the ones used to make the fiber, which can be natural, such as cotton, wool, or silk; they can be oil and natural gas, which are used to make synthetic or man-made fibers; or they can be inorganic fiber such as, for example, glass basalt

or carbon fibers (Sayed, 2014). The process of fiber production can be subdivided in three sub-stages: the production of raw materials, the processing and sourcing of materials, and the preparation of the fibers for the next step (UN Environment Program, 2020). The second step that must be taken into account is the creation of components, so the textiles. Textile production, usually done by textile companies (Gereffi & Fernandez-Stark, 2011), is formed by two steps: firstly, the obtaining of yarn and thread, and secondly, the creation of fabric through knitting or weaving (Bair, Frederick, & Gereffi, 2016). After that, the final apparel, clothing or fashion items, that include formal and casual wear, sportswear, accessories, undergarments, uniforms, and footwear is obtained (UN Environment Program, 2020). Furthermore, for the obtaining of the final products for the fashion industry, produced by the apparel manufacturers (Gereffi & Fernandez-Stark, 2011), two steps are followed: the bleaching, dyeing and finishing of the materials, and the assembly of the garments (UN Environment Program, 2020). The next step in the value chain is the distribution, retail and marketing, which includes the logistics and distribution of the finished products, the retail and sales of the products, which includes the distribution through mass merchants, specialist stores, e-commerce and also B2B, and it also includes the marketing activities (Bair, Frederick, & Gereffi, 2016). All the consulted literature coincided in the presence of these four activities in the value chain. However, in some cases, some activities are added at the end of the value chain. Firstly, the use of the goods until the end of the life cycle of the product can be added to the value chain. Secondly, the activities in the end of the life of the products should also be included in the value chain of the fashion industry. Such activities include the collection of the garments at the end of their life and either recovering them through their resale or the use of the fiber as a raw material, or a component for new products, or the disposal of the garments, either landfilled or burned (UN Environment Program, 2020; De Brito, Carbone & Blanquart, 2008).

In order to complete the value chain of the fashion industry, three activities must also be included. On the one hand, the activities before the obtaining of materials should be research and development, and product design, as the innovation and the design of the product determines the rest of the value chain. On the other hand, services are another step in the value chain that must be included because it influences the relationship between the company and the customers. In the case of the fashion industry it can include customer services before the sale, such as the provision of information, and the in-store attention, and it can refer to services after the sale of the product, such as the repair of the products, customization, the return of items, the warranty service, or the provision of a customer service number within other services (Grant, 2020; Daniels, Radebaugh, & Sullivan, 2014). Of course, secondary activities such as the management of materials and equipment, the infrastructure of the firm, human resources management, and systems and solutions, or the flow of information throughout the value chain, are always present in every activity of the value chain (Daniels, Radebaugh, & Sullivan, 2014). Taking into account all the activities of the value chain that have been explained above, and the different illustrations provided by the literature included in Figures A9.2 to A9.6, it is possible to construct a complete version of the fashion industry's value chain as Figure A9.7 shows.

1.1.3- Governance and Geographic Scope in the fashion industry's value chain

After seeing the structure of the fashion industry's value chain, we will continue the GVC analysis by studying the kind of governance, and geographic scope.

There are two possible types of governance in an industry. On the one hand, there are the producer-driven industries where manufacturers with great market share control own most of the suppliers by having a vertically-integrated business structure, such as the motor vehicles one. On the other hand, we find buyer-driven industries where the designers, retailers and other firms with important brands, known as the big buyers, are in charge of the sale of goods that are produced by subcontracting networks, which they usually do not own. The most used example for buyer-driven industries is the apparel or fashion industry, which is the one reviewed in this FDP (Bair, 2005).

The fashion industry is clearly buyer-driven (the buyer being the fashion company, for instance a retailer or brand, that outsources the obtaining of raw materials and manufacturing of products), and it is even possible to affirm that global buyers, including the designers, retailers, etc., tend to have much more power than the suppliers and manufacturers. This is due to the fact that the big buyers, or global buyers, control what is produced, in what places, which are the manufacturers and suppliers, and the price they will pay for such production (Gereffi & Fernandez-Stark, 2011). In a nutshell, the situation is the following: The most valuable activities of lead companies are not the manufacturing of the products, also known as tangible activities, but the branding, marketing and design, or intangible activities. Consequently, lead firms generally have their headquarters in developed markets such as Europe, Japan or the United States, where they perform intangible activities, and outsource the production and manufacturing activities in an international network of manufacturers and suppliers, usually in developing countries. Moreover, as can be observed in Figures A9.8 and A9.9, China is the lead country for all supply activities, followed by India in the process of fiber production, yarn preparation and activities such as weaving, knitting and bonding, and also followed by Turkey and Bangladesh in the process of bleaching, dyeing and finishing the garments, and by the European Union (EU) in assembly (UN Environment Program, 2020). Furthermore, manufacturers from developing countries must compete for the investments from global lead companies, which implies that suppliers have little bargaining power, and an uneven addition of value in the fashion industry value chain (Gereffi & Frederick 2010).

Having realized the importance of retail companies in the apparel industry, which are lead companies that concentrate a great amount of bargaining power in the industry, the comparative case studies that will be developed in section 2 are focused on two retail companies. We have selected Kiabi, a retail seller of clothing in specialized stores; and Percentil being an on-line retail seller of second-hand goods.

1.2- Sustainability

This whole FDP is based in one core concept: sustainability. Thus, understanding the meaning of this term is key to be able to proceed with further analysis. The sustainability of human life can be understood as the fulfillment of present needs, without endangering the needs humanity

may have in the future (United Nations Academic Impact, n.d.). The definition of sustainability is quite broad and flexible, since it has to be applicable in a variety of areas, such as the exploitation of resources, the direction of investments, technological development, or institutional change (United Nations, 1987), but also in the areas of social relations, and caregiving, usually included in unpaid home tasks (Carrasco, 2014). Moreover, this concept is multidimensional, which is what the following subsection will analyze in depth.

1.2.1 Multidimensional sustainability of human life

Most literature on sustainability uses the concept of the three interdependent dimensions, or pillars of sustainability, which are: economic, environmental, and social. The multidimensionality of sustainability, and these three main pillars cannot be attributed to one specific author since the concept has no clear origin because the sustainability discourse has its origins in many different schools of thought (Purvis, Mao & Robinson 2019). All three dimensions are necessary to ensure sustainability and interdependent, so none of them has priority over the rest, as shown in Figure A9.10 (Carrasco, 2014).

It is now interesting to define each dimension. Firstly, economic sustainability requires the balance between production, consumption and investment both in the short term and in the long term (Carrasco, 2014), giving humanity access to the necessary financial and non-financial resources (University of Alberta, 2016). This implies that economic sustainability is not the quest towards the maximization of profit and economic growth, but the development of innovative forms of production and consumption, and the fair share of resources and income. The achievement of economic sustainability must be considered at two different levels: the macroeconomic and the microeconomic levels. On the one hand, the study of sustainability from a macroeconomic perspective would cover the sustainability of the decisions taken by states and governments (Investorpedia, 2020) and would focus on how the economy as a whole is sustainable or not. On the other hand, the microeconomic point of view of sustainability would imply the study of how sustainable individuals, households and firms' activities are (Investorpedia, 2020). The focus of this FDP is to study sustainability at a microeconomic level, since it will analyze the sustainability of two types of fashion retail business models. Secondly, environmental sustainability can be understood as the exploitation of the natural resources of the planet and the development of society, at a speed that allows these resources to be renewed and used by the next generations. It is believed that this pillar of sustainability is not compatible with the current capitalist production systems established worldwide since these just use world's resources and nature for the obtaining of individual profit in the present, without taking into account the availability of such resources for future generations (Carrasco, 2014). Thirdly, social sustainability implies having a society where all people's human rights are respected, and where their basic needs are covered. It also involves a cohesive society where there is a fair distribution of timing and work (Carrasco, 2014), which means that there should not be a gendered distribution of work and caregiving, and all people should have equal access to both kinds of activities.

Most literature still focuses on the environmental pillar of sustainability exclusively. However, as mentioned before, this can result in being unproductive. Only taking care of ensuring the

planet's resources for the next generations without taking into account and neutralizing the world's social inequalities, would perpetuate the breach of human rights and the unequal distribution of work and caregiving in society, thus jeopardizing the social dimension of sustainability. Furthermore, the resources would be indeed ensured, but not for the whole of future generations' population as resources would be distributed in an unequal and unfair way, undermining the economic dimension of sustainability. Furthermore, as we develop in Annex 3, even if there are alternative ways to view the dimensions of sustainability, to do the analysis of the sustainability of retail fashion companies in a complete way all three dimensions must be taken into account.

1.2.2 Triple Bottom Line

Since this project's analysis has a microeconomic point of view, as it focuses on the study of the sustainability of different types of fashion retail business models, it is necessary to find a concept or framework that links sustainability and business activity. In order to do so, the concept of Triple Bottom Line can be useful. Created by John Elkington in 1994, the Triple Bottom Line had the purpose to make companies be managed not only to gain profit, but to improve people's lives and the planet (Kenton, 2020). The triple bottom line comes from the concept of the bottom line, which can be understood as the "company's earnings, profit, net income or earnings per share (EPS)" (Tuovila, 2020). Furthermore, the goal of the triple bottom line is to measure over time three bottom lines: the financial one, which is the traditional measure of profit of the company in the profit and loss account, the social one, which is related to the people and the social responsibility of the organization, and finally the environmental or ecological one, which is related to the planet and the environmental responsibility of the company. In sum, and coming back to the three dimensions of sustainability, the Triple Bottom line theory expects companies to give the social and the environmental sustainability of the company the same importance as the economic sustainability of the company.

As further explained in Annex 4, the triple bottom line (TBL) was meant to make businesses stop focusing just on profits, and to include social responsibility and environmental issues in their plans and strategies. However, 25 years after the creation of the term, it has just become an accounting tool for companies, instead of changing the way capitalism works, contrarily to what Elkington intended. (Elkington, 2018)

1.2.3 - Sustainability problems that arise from the fashion industry

This section is a presentation of the different sustainability problems caused by the fashion industry and its pace of production and consumption. Annex 5 contains an extended version of these explanations. Most of the issues presented below have in its core fast fashion, which is one of the most recognizable yet problematic business-models in the fashion industry. Fast fashion is based on the fulfillment of consumer's demand for updated fashion items, often inspired by designer brands, at a low cost. In order to increase sales by making the articles seem more exclusive, and to follow updated trends, fashion products are released in small batches and frequently renovated (Chouprina, 2014). One of the effects of fast fashion is the increase of production: between the years 2000 and 2014, clothing production has doubled.

The rise of the middle-class population worldwide is a key factor that increases the sales per capita of fast fashion in mature economies, as it produces a great quantity of diverse products at affordable prices (UN News, 2019; Ellen MacArthur Foundation, 2017). Besides, the number of yearly collections has also increased in the last decade: the average number of collections among European fashion firms has more than doubled, from two to five in 2002 and 2011 respectively. This is more pronounced for important fashion retailers like Zara, with 24 collections per year, and H&M with 12 to 16 yearly collections (Remy, Speelman & Swartz, 2016). In addition, between 2002 and 2015, sales grew from $1 trillion up to $1.8 trillion respectively, and it is expected to rise up to $2.1 trillion by 2025. Moreover, on average, people purchase 60% more clothing articles and keep them for half the time than 15 years ago (Greenpeace, 2016).

Although fast fashion has been a successful business model for companies in economic terms, its prioritization of speed, quantity and size may lead to several threats to human well-being, making it unsustainable (Kim, Choo & Yoon, 2013). These threats can be grouped in three dimensions of sustainability: environmental, social, and economic.

1.2.3.1- Environmental issues

The magnitude of the environmental threat posed by the fashion industry endangers the access to natural resources of future generations, rooted in their depletion and pollution. Firstly, the fashion industry is considered by the UNCTAD as the second most polluting industry worldwide, and its carbon emissions are superior to all international flights and maritime shipping combined (UN News, 2019). Furthermore, 8% of the planet's greenhouse gas emissions are generated in the manufacture of clothing and footwear. If these trends continue, the fashion industry's greenhouse gas emissions could rise by 50% until 2030 (UN News, 2019). Secondly, water waste and pollution are important environmental consequences of the fashion industry: the fashion industry as a whole use yearly 93 billion cubic meters, which is enough for 5 million people to survive, and also produces 20% of global wastewater (UN News, 2019). Also, the fashion industry causes the most plastic to enter the ocean with more than 5 million tons of plastic microfibers released annually, mostly coming from washing plastic-based materials, and dyes and textile treatment also pollute 20% water globally (Ellen MacArthur Foundation, 2017). Thirdly, the production of cotton is problematic since, although only 2.4% of the world's cultivable land grows cotton, this crop accounts for 24% and 11% of the insecticides and pesticides global markets respectively (WWF, 2013). The pesticides and chemicals change soil composition and hamper the balance in which the microorganisms of the soil live, growing harmful bacteria (WWF, n.d. a). This leads to the pollution of rivers, lakes, wetlands and underground aquifers, posing direct threat to biodiversity, and to the health of farm workers and close populations (WWF, n.d. b). Fourthly, the waste generated after the useful life of clothing and the lack of fashion recycling is another problematic effect: In the last 15 years, the number of uses of each garment has decreased by 36%. This is environmentally detrimental, as every second, a number of textiles corresponding to one garbage truck is landfilled or burned (UN News, 2019), implying a waste of the resources used for the production of the garments, and pollution through the emission of greenhouse gases and dangerous chemicals when incinerating or landfilling (Greenpeace, 2016). An important

amount of waste could be reduced if the materials and parts of the clothing items were recycled, and reintroduced in the production system to create new clothing, but only 1% of clothes go back to the fashion industry to be recycled as raw materials, which highlights the lack of closed-loop recycling within the fashion industry (Ellen MacArthur Foundation, 2017).

In conclusion, it is key to notice that all these aspects are all interlinked: the linearity of the fashion industry has a negative impact on all four issues mentioned above. Moreover, fast fashion is the root of the environmental damage caused by the fashion industry, and the continuity of strategies rooted in it such as the growth of production and consumption, the short lifespan of clothing items, and the lack of recycling of the materials after their life is over there could be disastrous consequences in the long term, which are further explained in Annex 5.1.

1.2.3.2- Social issues

The fashion industry, is the source of several social problems. Firstly, gender inequality and GBV are social issues rooted in the fashion industry. Approximately 80% of garment workers are women: the cultural and gender stereotypes portraying women as passive and flexible make them the ideal target workers in clothing factories. Furthermore, it is very difficult for them to find other types of jobs because of their domestic responsibilities, such as cleaning, cooking and childcare (Labour Behind the Label, n.d. a). Systematic gender pay gaps are also present: for instance, in India, women earn 39% of the wage of a man with the same job, and in Pakistan, this percentage is 48% (Global Fashion Agenda, 2017). The case of Bangladesh illustrates how demanding the labor conditions are for women: in 2001, 85% of apparel workers in Bangladesh were young women, aged between 16 and 25. They worked in extreme conditions, doing 12 to 14-hour shifts, seven days a week, and earning wages under the national minimum wage (Taplin, 2014). Four types of GBV are also present in the workplace of women in the factories in countries like Bangladesh or India: First, physical abuse, which includes violent attacks, injuries, and even murder; Second, Sexual violence, such as rape, sexual harassment and verbal abuse; Third, psychological violence, found under the form of bullying, stalking, coercion, psychological abuse, and intimidation; And fourth, structural violence, including economic exploitation, or the denial of access to education (FEMNET, n.d.). In addition, motherhood is a subject of discrimination, since a requisite to be hired can be to agree to not have children during the period of employment, and in case of pregnancy women are verbally harassed, asked to have higher production quotas, and expected work in fatiguing tasks for more hours than usual (Labour Behind the Label, n.d, a).

Secondly the health and safety risks workers undertake in their workplace are numerous: Employees work in unsafe buildings with structural problems, which can cause tragedies such as the collapse of the clothing factories called Rana Plaza in Bangladesh, where 1,127 people, mainly young women, died. These buildings lack ventilation, making the heat inside very intense, and workers have restricted access to clean drinking water, or to the bathroom, and use dangerous chemicals in their workplace (Labour Behind the Label, n.d. b). Also, the lack of security measures in the factories like emergency exits, and the practice of locking of doors and windows to avoid theft, can cause multiple deaths in case of fire (Labour Behind the Label,

n.d. b). Moreover, workers are abused, or even killed, for joining a union and demanding better working conditions (Labour Behind the Label, n.d. b).

Thirdly, factory workers tend to work between 10 and 14 daily hours, to which they add forced overtime, resulting in 18 hours of work a day when factories have large orders. Because they do repetitive work, workers get undiagnosed injuries, but a decrease of productivity may cost them their job (Labour Behind the Label, n.d. b). Salaries often do not cover basic costs such as rent, food, medical expenditures, and education for children since they are often under the national living wage. These are usually determined by governments, which want their country to compete with other countries with inexpensive human capital in order to maintain its investors (Labour Behind the Label, n.d. b). Although in recent years some governments, such as the Bangladeshi government, have tried to raise their national minimum wage, which has oftentimes been considered insufficient by workers (Business & Human Rights Resource Centre, n.d.).

The fourth social issue caused by the fashion industry is child labor, defined as work done below the required minimum age, so work that the child is too young to do, or as unacceptable work for children because of its harmful nature or conditions (Moulds, 2015). Until 2016 the number of children in child labor has decreased to approximately 152 million. However, this is still 10.6% of the worldwide children population, as we can see in the Figure A9.11 (International Labour Organization, 2017). Child work in the fashion industry is spread worldwide and throughout the whole supply chain: In the obtaining of raw materials (Moulds, 2015), in yarn and spinning mills (SOMO, 2014a), and, in the final stages, putting clothes together (Moulds, 2015), doing laborious activities such as “dyeing, sewing buttons, cutting threads, folding, moving and packing garments” (SOMO, 2014b). When working, children are exposed to all the social hazards mentioned earlier: their wages are very low, they work very long days, and they also suffer the bad workplace environment, which can lead to health and security issues. Finally, child labor also jeopardizes children’s education: It either prevents them from getting an education, or, if they are enrolled in school, it allows them to learn less (International Labour Organization, 2017).

The fifth and final social issue is that, although workers in the main clothing manufacturing countries benefit from the employment in the fashion industry, they are also affected by the pollution of their home territories (Ellen MacArthur foundation, 2017). Thus, the citizens of countries where most clothing is produced are negatively affected by all environmental issues that have been mentioned in the previous section: The exposure to Carbon emissions and the pollution of water lead to various health conditions and may decrease the resources the population of these regions have (Farooq, Shahzad, Sarwar & ZaiJun, 2019; Greenpeace International, 2013; Owa, 2013; Global Fashion Agenda, 2017). This explanation is studied more in depth in in Annex 5.2.

In conclusion, the root of social sustainability problems is again fast fashion, specifically the race to the bottom effect, defined as the situation in which a company or a region tries to have lower prices than the ones of the competition by decreasing the quality of said products, worker safety, or reducing labor costs (Chen, 2020). Countries such as Bangladesh, or Cambodia base a lot of their economic development on the export of clothing manufactures, as they are

countries rich in labor and do not have much capital (Taplin, 2014). The fact that fast fashion retailers require a very fast production puts pressure on factory workers and worsens their working conditions, as working hours increase, wages are extremely low, and workplace conditions become dangerous.

1.2.3.3- Economic consequences

If all the problems that have been presented above were addressed, the world economy would have a gain that amounts to €160 billion by 2030 (Global Fashion Agenda, 2017). Figure A9.12, shows how this quantity has been plotted, and its different parts will now be explained. Annex 5.3 explains the benchmarks used for the presentation of the following conclusions. On the one hand, environmental issues may risk a value of €110 billion. Firstly, avoiding the increase of water consumption until 2030, maintaining the 2015 figures of 79 billion cubic meters of water consumed, could imply a global benefit of €32 billion per year. Secondly, preventing the growth of Carbon emissions until 2030 thanks to an improvement of energy management would imply a benefit up to €67 billion by 2030. Thirdly, improving chemical management would decrease health issues related to the chemicals used to produce cotton, leading to a yearly gain of €7 billion in 2030. Fourth and last, the world economy would gain € 4 billion per year in 2030, solely from the reduction of waste, even with the use of linear value chains (Global Fashion Agenda, 2017). On the other hand, social burdens imperil €50 billion. Firstly, the International Labour Organization (ILO) recommends companies to act on "extreme compliance" to minimum wages, so paying 120% the legal minimum wages. By not incrementing the number of workers paid less than 120% of the minimum wage, the global economy could have a yearly benefit of €5 billion. Secondly, if all workplace injuries were prevented until 2030, there could be a worldwide gain of €32 billion per year by 2030. Thirdly, if fashion companies increased their community spending from the current 0.2% up to the 0.7%, which the UN Millenium Development Goals expects from governments in wealthy countries, there could be a global annual gain of €14 billion in 2030 (Global Fashion Agenda, 2017). In addition to the environmental and social dimensions, a third dimension might be contemplated: the ethical one. Although this one cannot be quantified, ethical issues such as animal welfare, loss of biodiversity, corruption and negative imagery within others, are also important for the fashion industry to keep in mind in the future.

After checking the money at stake worldwide, it is important to look at how the maintenance of the status quo of fashion companies regarding sustainability may decrease their profitability in the future. As we can see in Figure A9.13, which represents a Profit and Losses (P&L) statement for a fashion company, companies are expected to have a decline in Earnings Before Interests and Taxes (EBIT) margins of more than 3% if they continue with the same sustainability practices they have now. This is due to the possible increase of the retail value by 2% annually, and that the cost of labor is projected to grow yearly between 4 and 5%. Also, cotton prices are expected to have an annual growth of 1%, which could be increased due to future water scarcity. For energy, accounting from 6 to 10% of production and material costs, prices are also forecasted to increase yearly between 2.3% and 3.5%. Furthermore, a decrease of the EBIT of 3% for all fashion companies would imply a loss of yearly profit of €45 billion in the whole fashion industry. To prevent the increase of costs, and to become more

sustainable, fashion companies should invest in being more efficient in terms of water, energy and waste efficiency, and labor productivity (Global Fashion Agenda, 2017).

1.3 Circular Economy

The explanations of section 1.1 presented sustainability, its dimensions, the TBL, and the sustainability problems existing in the fashion industry in the three dimensions. From those explanations it is possible to conclude that the way the fashion industry is currently conceived must change. This is where the concept of circular economy comes into play, since it enables to change one of the core attributes of the fashion industry: economic linearity. This section will present the definition of circular economy, its different parts, the variety of business models that may come up from it, and specifically, the new business models that have been appearing in the fashion industry that apply circular economy.

First, it is essential to define the concept of circular economy. A circular economy is an economic system in which, instead of creating products with an "end-of-life" in a certain moment, products can be reused and recycled, and the materials from production, distribution and consumption can be recovered. Furthermore, it ensures sustainability in all its three dimensions: environmental, economic and social, which will benefit present and future generations (Kirchherr, Reike & Hekkert, 2017). In a nutshell, to start implementing circular economy, companies must abandon their linear model, based on exploitation of natural resources and its use as inputs for production, which makes products become waste once their life cycle has ended (Fundación ICO, 2020). In other words, circular economy implies the gradual separation of economic activity from the depletion of finite resources, by reducing or even eliminating the creation of waste by the system (Ellen MacArthur Foundation, n.d. a). Thus, the circular economy has three main principles (Ellen MacArthur Foundation, n.d. b). First, taking waste and pollution out of the design of products and services by innovating with new materials and technologies that do not waste or pollute. Second, maintaining products, materials and resources inside the economic system for the longest time possible which leads to the minimization of the extraction of natural resources, and the reduction of waste and harm to ecosystems (Fundación ICO, 2020). Third, regeneration of natural systems, which means not only protecting, but actually improving the environment by restoring the ecosystems from which resources are extracted.

1.3.1 Parts of the circular Economy

As Figure A9.14 shows, the circular economy can be divided into five main parts. The first one is the "eco-design", implying that the product must be conceived to be part of a circular system or economy. Furthermore, the eco-design leads to the reduction of raw materials, and maximization of the useful life of the product through the recycling of raw materials at the end of its lifecycle. Secondly, in the obtaining of raw materials, sustainable and secondary materials, which are raw materials recovered from the productive process' waste, are prioritized. The third part of the circular economy is the production, where sustainable and secondary raw materials are used to obtain the products, and throughout which there is a minimization of waste generation, and raw materials and energy consumption. In fourth place

there is the use or useful life of the product, throughout which the durability of the product is maximized by means of product reparation, maintenance, reuse, renovation and adaptation. The final part of circular economy is the treatment of waste once the useful life of the product has ended. Furthermore, the processing of waste focusses on the recycling and reintroduction of secondary raw materials in the production process (Fundación ICO, 2020).

The circular economy can also be represented by what is known as the “butterfly diagram”, which is explained in Annex 6.

1.3.2- Types of circular fashion business models

One of the benefits of the circular economy, mentioned in Annex 7, is that it leads to the possibility of creating new business models throughout any phase or part of the circular economy, including the following five new types. Firstly, some business models may focus on the provision of materials and supplies that are completely renewable, recyclable or biodegradable. Secondly, circular economy may lead to the conception of business models with the purpose of recovering the parts of products at the end of their useful life, to use them in the production of other goods. Thirdly, some business models may be dedicated to the extension of the life of products through either reparation services, actualization, or re-manufacture. Fourthly, there are business models that revolve around collaborative economy and exchange platforms, which also stretch the life of the products. Finally, some business models use the servitization of products. That is to say, this kind of business model makes clients pay for the use of the product, but not for its full ownership (Fundación ICO, 2020).

The new fashion business models conceived from circular systems must ensure sustainability in all three dimensions: environmentally, socially, and economically. Furthermore, these business models offer high-quality products and services that encourage giving the maximum life possible to the fashion items, which should be recyclable and re-introduced in the economy as raw materials. We now present a variety of fashion business models surging from the circular economy, which can appear throughout any phase or part of the circular economy. Annex 8 provides more detailed explanations for each type of business model and its examples.

Firstly, two types of business models can appear in the part of the eco-design and obtaining of raw materials for the garments: On the one hand, companies with business models selling clothes made from recycled materials usually use non-biodegradable materials such as plastics to design their garments. This is the business model of Ecoalf (Spain) (Ecoalf, n.d.), and has been incorporated by fast fashion companies like H&M (Sweden) to some of their products (Caro & Martínez-de-Albéniz, 2015). On the other hand, companies with business models that recover materials from fashion items to use them as new inputs recover materials from already existing garments at end of their useful life, reduce the waste of clothing, and create sustainable materials. This is the case of Hilados Olotenses SA (Spain), which produces recycled thread (Fundación ICO, 2020), and also the case of some parts of the production of the fast fashion company Uniqlo (Japan) (Uniqlo, n.d.). Secondly, clothing care business models – like for instance Patagonia– aim to elongate the useful life of the products through their reparation and redesign. Their goal is to maintain clothes with its maximum perceived,

and actual value for the longest time possible (Ellen MacArthur Foundation, n.d. c). Thirdly, fashion rental business models like Rent the Runway (US) (Rent the Runway, n.d.) and Ecoadicta (Spain) (Fundación ICO, 2020) question the concept of ownership by giving customers access to a wide range of fashion items, and decreasing the demand of newly-produced garments. Fourthly, resale of clothing business models can avoid the waste of clothing and provide customers with a wide range of fashion offers. It is possible to identify two resale e-commerce business model types: On the one hand, in the business model of Poshmark (US) and Vinted (Lithuania), they act as a network that puts the seller and the buyer in contact, enabling the sale and purchase of second-hand clothing (Poshmark, n.d.; Vinted, n.d. a). On the other hand, the business model of ThredUp (US), and Percentil (Spain), turns the company into an intermediary between sellers and buyers that checks the quality of the clothes before selling them (Percentil, n.d. a). Fifthly, swapping of clothes business models elongate the useful life of clothes, and reduce the waste generated throughout the production and the waste management (Rathinamoorthy, Surjit & Karthik, 2019), while making fashion accessible for anyone (Swap Society, n.d.). Companies like Vinted (Vinted, n.d. b) and Swap Society (Swap Society, n.d.) already use these types of services.

Although all these business models rose from the concept of the circular economy, these are not all the possible business models. In the coming years, and mostly if the application of the circular economy gains success, it is possible that other business models arise thanks to innovation and entrepreneurship.

II- COMPARATIVE ANALYSIS OF KIABI AND PERCENTIL

This section includes the practical part of the project, which consists of a comparative analysis of two fashion retail companies: Kiabi (Kiabi Europe Limited Company), and Percentil (Casi Nuevo KIDS Limited Company). Although both are retailers, there is a clear difference between the two: Kiabi is a fast-fashion retailer with specialized stores and a linear business model, and Percentil is an on-line retailer of second-hand goods with a business model conceived from circular economy. Thus, this section will allow us to answer the second research question, as well as to confirm or dismiss Hypothesis 2 and Hypothesis 3. To understand which are the company's main activities, i.e., their internal environment, a Value Chain analysis of both companies will be performed. Then, an external environment analysis will be developed by using two frameworks: the PESTEL framework for the global environment, and Porter 5 forces for the specific or business environment. Finally, to analyze the three dimensions of sustainability: social, environmental and economic in the two companies, a triple layer business model canvas will be executed for each one.

2.1- Internal analysis: Value Chain Analysis

To understand Kiabi and Percentil's business models, it is first crucial to know what their value chain consists of. In section 1.1, we defined what the GVC is. Furthermore, this section will be focused on defining the different activities that allow both companies to create value for all stakeholders, and in which order.

2.1.1 Kiabi

Kiabi Europe LC is a very large fashion retail company with its headquarter in Hem, a French town in Nord-Pas-De-Calais-Picardie, France (AMADEUS, 2020), and it has a standard fast fashion retailer value chain. Its first steps are research and development and design of the fashion items, which is done in-house. Then, the obtaining of raw materials, components and final products is outsourced in 12 different countries apart from Europe: Bangladesh, China, India, Indonesia, Morocco, Pakistan, Turkey, Sri Lanka, Ethiopia, Vietnam, Cambodia, and Myanmar (KIABI, 2020). The company identifies three types of suppliers: Type 1, which are Kiabi's direct suppliers, Type 2, the suppliers of Kiabi's Type 1 suppliers, and finally, Type 3 suppliers, which are other fiber suppliers. Furthermore, Kiabi audits, educates and assists on aspects like human rights, respect of worker's rights, and security to its Type 1 and 2 suppliers (KIABI, 2020). After the manufacturing, Kiabi manages the logistics to transport the finished goods to their warehouses, from which they are either sent to Kiabi's physical shops, or to customer's homes if they are shopping at Kiabi's website. Kiabi's physical shops are located in 19 countries, and in 12 of them it appears under the form of a franchise. Its 508 shops are located in France, Spain, Italy, Portugal, Belgium, Poland, Russia, Malta, Morocco, Algeria, Tunisia, Saudi Arabia, United Arab Emirates, Senegal, Ivory Coast, Gabon, Republic of Congo, La Réunion, Guadeloupe, Martinique, Guyane, and Brazil (KIABI, 2020). This company also performs marketing activities, and provides in-store and on-line customer services. Regarding the end of the life of its products, in France, Kiabi has done two campaigns to collect clothes and other fashion items, which were either recycled, re-sold in its partner's second-hand shops or re-used as industrial chiffons. Also, products that were not sold in Kiabi's shops are donated to the Agence du don en Nature, and to two solidary second-hand fashion shops in France. Moreover, Kiabi already implemented in France a second-hand on-line platform named Seconde Main by Kiabi where customers can post the clothes from any brand, they want to sell for other platform users to buy them. Also, Kiabi tested during the summer of 2020 having a corner of their French shops with second-hand clothes on sale, and announced in mid-January, 2021, the opening of 25 new second-hand fashion shops in France, Spain, Italy and Belgium (Modaes, 2021; KIABI, n.d. a, n.d. b). Throughout Kiabi's value chain, secondary activities (materials and equipment, firm infrastructure, human resources and systems and solutions) are also performed. All these primary and secondary activities are represented in Figure A10.1.

2.1.2 Percentil

Casi Nuevo Kids LLC, also known as Percentil, is an on-line second-hand fashion consignment company with its headquarter in Las Rozas de Madrid, Madrid, Spain (SABI, 2020). The process of sale and purchase goes as follows (Annex 12a). Firstly, Percentil sends a free bag for the client to fill with the clothes they do not want anymore. A messenger picks up the user's bag free of charge. When the bag arrives to Percentil's warehouse located in Madrid, it passes through the selection process, in which clothes are either considered good for sale, or discarded. Once the products of the bag have been examined, Percentil sends the seller an email notifying the estimated sale price, and the price that they will earn for each item. Then,

Percentil takes pictures of the clothes, categorizes them, and uploads them on its website. The company also markets their clothes to make the new products visible. When items are purchased, Percentil sends them to the buyer. For now, Percentil ships and receives its products in France, and Germany besides Spain, having websites for each country. Furthermore, the company will soon expand its business to the Netherlands (Annex 12a). In order to help sell the items, when clothes have been 15 days in the on-line shop Percentil applies discounts progressively (Annex 12a). Finally, in the case in which any item is discarded in the selection process, or not sold after four to seven months on the webpage, three options are offered to the seller: either recover the item, recycle it, or donate it to NGOs (Annex 12b).

Figure A10.2 illustrates the activities that Percentil performs in the fashion industry's value chain, and the ones that exist in the fashion industry's value chain, but that Percentil does not perform because the company's goods are second-hand. This will later be useful to analyze how Percentil avoids many negative impacts on the social and environmental sustainability dimensions. Of course, throughout Percentil's value chain, secondary activities (materials and equipment, firm infrastructure, human resources and systems and solutions) are also present. It is possible to observe that Percentil's value chain is in fact a circular system that maintains itself, which allows us to highlight the that it was conceived from the concept of circular economy.

2.2- External Analysis: Global and specific environment

Before analyzing Kiabi and Percentil internally, it is important to understand the external environment these companies work in. To do so, two frameworks will be used: PESTEL, and Porter's 5 forces framework.

2.2.1-Global environment: PESTEL

The PESTEL framework is useful to study which are opportunities and threats of a company. This analysis consists of six main categories. The political factors refer to how governments and their policies impact the company. Economic factors relate to the aspects that affect economic performance of a region, and the economic profitability of the company. Social factors focus on the current social trends, such as demographics, cultural trends, changes of attitudes and lifestyles, etc. In addition, technological factors are related to technological innovation in the industry. Environmental factors consider the environmental impact of the company. Finally, legal factors include the legislation and changes that may affect the company (Business-to-You, 2016; CIPD, 2020). Since most of the information from the PESTEL analysis will be also included in the Triple Layer Business Model Canvas, and because of a lack of space, the PESTEL analysis for the two companies can be found in Annex 11.

2.2.2- Specific or business environment: Porter 5 forces

We continue the external analysis for Kiabi and Percentil using Porter's Five Forces framework, which will allow us to understand the different forces that influence the business environment for the two studied companies. This framework is formed of three sources of

horizontal competition: the competition from substitutes, threat of new entrants, and the competition from established rivals; and it is also formed of two sources of vertical competition: the bargaining power of suppliers, and the bargaining power of buyers. In order to determine the intensity of the forces, we will analyze the key factors that affect each force, and their strengthening or weakening effect on the force.

2.2.2.1 Kiabi

a) Bargaining power of buyers (B2C) → High

i. Buyer's price sensitivity → medium-high→ Increase bargaining power of buyers

- The price of Kiabi's clothes is low, which makes the proportional cost of their products low compared to other expenses. → Decrease price sensitivity
- Since fast-fashion clothes are adapted to customer's taste, Kiabi's clothes, which can be considered fast fashion, are not differentiated from its competitors'. Furthermore, buyers are more willing to switch their purchase on basis of price → Increase price sensitivity

ii. Size and concentration of buyers: The size of Kiabi's potential buyers is very high, as the company has shops in 19 countries and Kiabi's target clients are not the type that spend a lot of money per purchase. Therefore, losing one client does not cost much to Kiabi → Decrease bargaining power of buyers

iii. Buyer's information: With access to the internet, Kiabi's buyers are able to be well-informed about prices, quality, and sustainability of products. In fact, Kiabi posts yearly since 2018 a non-financial report. → Increase bargaining power of buyers

b) Bargaining power of suppliers → Low

i. Kiabi invests on providing support to its suppliers in terms of fair labor rights, and more sustainable methods of production, which would be lost if Kiabi changed its suppliers. So Kiabi would incur in some switching costs → increase of bargaining power of suppliers

ii. The needed inputs are not in short supply, in other words, raw materials are needed in large quantities → Decrease of bargaining power of suppliers

iii. Some of Kiabi's suppliers provide a differentiated input for Kiabi like for instance, suppliers that use organic cotton or recycled polyester as raw materials, suppliers fading jeans using the laser method, which the company promotes to become more sustainable → Increase of bargaining power of suppliers

iv. Kiabi works with many suppliers, 137 in 2019 (KIABI, 2020), so for the same types of inputs there are several suppliers→ Decrease of bargaining power of suppliers

v. There is not a threat for forward integration from Kiabi's suppliers, as they are companies focused on the extraction of raw materials, and manufacturing of the products→ Decrease of bargaining power of suppliers

c) Threat of substitute products→ High

i. Kiabi's substitutes, so clothes sold by other fast fashion brands have comparable or better quality and performance: For instance, in terms of fast fashion, the products the top 3 apparel retailers worldwide in 2019 (Statista, 2020; Retail-index, 2019): Zara, H&M, and Uniqlo, or C&A, are very similar to the ones sold by Kiabi. In terms of sustainability, there are already many companies that produce all of their goods with sustainable materials such as Ecoalf, much more advanced than Kiabi. → Increase of threat of substitute products

ii. There are many good substitutes that are readily available for customers from many different garment retailers such as the ones mentioned before. → Increase of threat of substitute products

iii. Substitutes are attractively priced: The retailers offering substitutes to Kiabi's clothes offer them at attractive prices, similar or lower than Kiabi's prices. → Increase of threat of substitute products

iv. End-users have low switching costs, as they are not loyal to one single brand (Jallad, 2017) → Increase of threat of substitute products

d) Threat of new entrants → Low

i. Trade barriers → High barriers of entry → Decrease Threat of new entrants

- To start fashion companies, important amounts of capital are required to put the whole value chain to work (Brownless, 2020). → Increase barriers of entry
- In the fast fashion market, companies are expected to do economies of scale in order to grow and to offer competitive prices. → Increase barriers of entry
- In the fashion industry, and more specifically in fast fashion, there are companies with absolute cost advantage, so some companies are able to produce the same quantity than its competitors at lower costs (Investorpedia, 2021). Most fashion companies use similar technologies and labor, but in the case of Chinese fashion companies, costs are reduced because the worker's salaries are lower, allowing them to offer more competitive prices (Worstall, 2015). → Increase barriers of entry
- Since fast fashion is responsive to customer's taste, mirror what is done by luxury brands or on fashion runways, it is more difficult for this type of companies to differentiate themselves from the competition. → Decrease barriers of entry
- There may be some legal barriers of entry such as the patents, trademarks and licenses. With the elimination of MFA's quotas with the World Trade Organization's Agreement on Textiles and Clothing, barriers of entry decreased (Gereffi & Fernandez-Stark, 2011). → Decrease barriers of entry

ii. Fashion retailer mainly differentiate their brand via Marketing and observing very closely what consumers want. This is due to the very low brand loyalty in the fashion industry. (Forbes) → Increase threat of new entrants

iii. The economic profit of fashion companies has declined in 2020 by 90% (McKinsey & Company, 2020), a drastic decrease compared to the growth of 4% in 2019 (McKinsey & Company, 2019). → Decrease threat of new entrants

iv. The pool of entry candidates is extremely large in the fashion industry due to the monumental amount of fashion SMEs. For example, in 2019, the EU had around 176,000 businesses from the textiles, fashion and footwear sector, and 90% of the workforce of this sector belonged to SMEs (European Commission, 2019). → Increase threat of new entrants

v. Experience/learning curve disadvantages: although new entrants are high in quantity, the importance of capital costs may cause the failure of many of these SMEs (Brownless, 2020). In addition, since fashion retailers can mainly differentiate themselves through branding and marketing, new and unknown fashion brands are at a disadvantage that could mean their end. → Decrease threat of new entrants

e) Competitive rivalry within an industry → High

Kiabi's rivals include big fast fashion retailers: Inditex (Zara), H&M, Uniqlo, or C&A within others.

i. Kiabi's competitors in the fashion industry, regularly do new actions to boost their sales such as creating new collections every few weeks, new marketing strategies, sales, etc. → Increase of Competitive Rivalry

ii. During 2020, there has been a decline of the demand and slow-down of market growth because of Covid-19 (McKinsey & Company, 2020).→ Increase of Competitive Rivalry

iii. Products of the fashion industry, and mainly from fast fashion are weakly differentiated because companies track their customer's taste and international fashion runways, and produce accordingly. → Increase of Competitive Rivalry

iv. Buyer costs to switch brands are low, which leads to low brand loyalty in the fashion industry, and even more in the fast fashion industry. → Increase of Competitive Rivalry

v. The conditions of the fast fashion industry tempt rivals to use price cuts to increase the sales. Since the switching costs of customers are low, companies may see this as an opportunity to be price-competitive. → Increase of Competitive Rivalry

2.2.2.2 Percentil

a) Bargaining power of buyers (B2C) → High

i. Buyer's price sensitivity → Low → Decrease bargaining power of buyers

- The price of the fashion articles sold on Percentil's website is usually a low proportion of buyer's budgets. → Decrease of price sensitivity

- Since Percentil sells second-hand apparel from many different brands with different styles, sizes and prices, the company has various differentiated groups of garments within its offering. → Decrease of price-sensitivity

ii. Size and concentration of buyers: As Percentil's business is only present in France, Spain, Germany, and soon in The Netherlands, its 191,000 users (Annex 12a) are limited to those regions. So, losing one client would be costly for the company. → Increase of bargaining power of buyers

iii. Buyer's information: Buyers are informed of every step of the process: who were the sellers of the garments, the state of the clothes they are buying, its price, pictures, and where Percentil's warehouse is located within other important information. In addition, with access to the internet, Percentil's users are well-informed and Percentil even offers a with information about sustainability and fashion. → Increase of bargaining power of buyers

b) Bargaining power of suppliers → High

Percentil's suppliers are individual people who donate their clothes to Percentil, so the company can sell the ones in good state. Furthermore, Percentil depends highly on each supplier to obtain good-quality pieces that can be sold. In fact, suppliers could decide to "integrate forward" meaning that they could directly sell the clothes and keep the whole amount of money, instead of just receiving a percentage of the sale money from Percentil. To do so, suppliers or sellers could use one of Percentil's rivals like Wallapop, Vinted, or Micolet. → Increase of bargaining power of buyers

c) Threat of substitute products → Low

i. Percentil offers a service and performance above the quality of most of the substitute platforms for the sale and purchase of second-hand goods or clothes: Percentil sells a wide variety of clothes for men, women and children, provides careful customer service, checks the quality of the clothes for sale, which is reassuring for customer, they do not charge for picking up of clothes from sellers, they do all the work for the sellers by being in charge of finding a buyer,... etc. (Annex 12a) → Decrease Threat of substitute products

ii. The number of substitute platforms available is reduced→ Decrease Threat of substitute products

iii. The products sold in other second-hand sale and purchase platforms are attractively priced → Increase of threat of substitute products

iv. End-users have low switching costs regarding fashion brands, however Percentil offers second-hand apparel from many different brands, styles, sizes and prices, so it is possible for them to search for a substitute good from one of the 20,000 brands inside Percentil's platform, with prices fitted to their budget (Annex 12a). →Decrease Threat of substitute products

d) Threat of new entrants → High

i. Barriers of entry: Medium-High → Decrease of Threat of new entrants

- Capital Requirements: In order to create an e-commerce for the sale and purchase of goods, the capital requirements are not very high. However, to have a second-hand fashion consignment company, the costs increase, as the company must acquire one or more warehouses, cover the transport of the goods, or offer intelligent technology on the web page, thus increasing the costs. → Increase of barriers of entry
- Economies of scale: The supply of second-hand on-line sale platforms depend on particular sellers. Thus, the quality, and quantity of the supplied goods cannot be forecasted or planned, so it impossible to perform economies of scale in this type of business. → Decrease of barriers of entry
- Absolute cost advantage: There are platforms for the sale and purchase of second-hand goods that just put in contact the sellers with potential buyers, reducing considerably the costs of these companies. However, for consignment platforms, costs are more difficult to be reduced to offer the same results, so it is more complicated to have absolute cost advantage in such companies. → Decrease of barriers of entry
- Product differentiation: The second-hand trading platforms are differentiated from each other since each one offers different services → Increase of barriers of entry
- Access to channels of distribution: For platforms that only put in contact the sellers with buyers of second-hand goods, the transport or distribution is not problematic, as they are not in charge of it. However, it is important to have a good distribution network for consignment platforms, which is not always easy. → Increase of barriers of entry

ii. On-line second-hand sale and purchase platforms make its users create profiles on them that are used both for the purchase and sale of garments. This creates a sense of community of the platform's users, which could reinforce brand loyalty (Jang, Olfman, Ko, Koh, & Kim, 2008). → Decrease of Threat of new entrants

iii. Market growth: Although in 2020 the Covid-19 crisis has led to been a decrease of growth in the fashion market, its other consequence is an increase of on-line shopping, and to a change of mentality of consumers. This encourages fashion retailers to reinforce their on-line presence (McKinsey & Company, 2020). The re-sale of garments is financially viable for most types of fashion items, which could lead to market growth for on-line second-hand sale and purchase platforms (Fashion for Good, 2019). → Increase of threat of new entrants

iv. The pool of entry candidates to the European market (where Percentil works) is large: Some companies like ThredUp and The RealReal (US) could become new important rivals if they decided to internationalize their business in Europe, performing activities really similar to Percentil. Also, important retail companies are starting or planning to offer services for the resale of second-hand clothes, like Zalando, Cos, owned by H&M, or Seconde Main by Kiabi (Arnett, 2020). → Increase of threat of new entrants

v. Experience/learning curve: Experience and learning is fundamental for the proper functioning of an on-line second-hand sale and purchase platform. Furthermore, many of the entry candidates already have experience on physical or on-line first and second-hand fashion retail, in addition to existing distribution networks and knowledge about consumers from the different territories. → Increase of threat of new entrants

e) Competitive rivalry within an industry → Low

In Europe, where Percentil works, the company's competitors include platforms for the general second-hand sale of articles, like Wallapop, and platforms specifically for the resale second-hand clothes, like Vinted, Micolet, and Vestiaire Collective.

i. Competing sellers do not launch many new actions to improve their market standing. This is very complicated to do as on-line second-hand platforms depend totally on the supply from their users. → Decrease of competitive rivalry within the industry

ii. Market growth: Covid-19 has led to a slow-down in the fashion market during 2020, but has also led to an increase of on-line shopping, and to a change of mentality of consumers (McKinsey & Company, 2020). Since the re-sale of garments is financially viable for most types of fashion items, this leaves fertile grounds to market growth for these business models (Fashion for Good, 2019) → Decrease of competitive rivalry within the industry

iii. End-users have low switching costs for fashion brands, but Percentil offers second-hand apparel from many different brands, styles, sizes and prices, so it is possible for them to search for another piece from inside Percentil's platform. This also happens in all other on-line second-hand platforms → Decrease of competitive rivalry within the industry

iv. Industry conditions do tempt rivals to decrease the price of the goods. Percentil, a consignment second-hand platform, decreases the price of the items posted on-line to increase the probability of selling them. Also, in non-consignment on-line platforms, the individuals who sell their clothes may also decrease the price to make their products more attractive. → Increase of competitive rivalry within the industry

2.3- Triple Layer Business Model Canvas

To fully understand Kiabi and Percentil's business models, the most common tool to use is the business model Canvas, by Osterwalder and Pigneur. This framework is formed by nine parts: key partners of the company, key activities, key resources, value propositions, customer relationships, channels, customer segments, the cost structure and the revenue streams of the company (Osterwalder & Pigneur, 2010; Osterwalder, 2013). This framework was conceived having in mind an economic approach, but it is not enough for us to explore the sustainability of a business model. Thus, we will use the Triple Layered Business Model Canvas, an expansion of the original business model canvas which uses the Triple-Bottom Line approach to it (Joyce & Paquin, 2016). Furthermore, it consists of three layers: the first

one is the original economic business model canvas, then, an environmental layer, and finally, a social layer.

The environmental layer includes the following nine elements: First, supplies and out-sourcing, or the activities that are performed outside of the organization. Second, the production, which is the environmental impact of the company's key activities. Third, the materials used by the company to create value. Fourth, the functional value, or the quantitative value of the covered needs by the product. Fifth, the end-of-life, which studies how the company expands its business beyond the first life of the product. Sixth is distribution, or the environmental impact of the logistics, packaging and delivery. In seventh place, the use phase includes the client's impact on the functional value of the products such as repairing of products, as well as the energy and material expenditure to do so. In eighth place, the environmental impacts are the environmental costs that the company's activities incur. And in ninth place are the environmental benefits of the company, or the environmental value created by the company (Joyce & Paquin, 2016). The social layer is also formed of nine aspects: Firstly, local communities, and the relationship the company builds with them. Secondly, governance, or the structure and decision-making policies of the company. Thirdly, the employees, who they are, and their role as an essential stakeholder of the company. Fourthly, the social value of the company is how the company's mission creates advantages for society. Fifthly, societal culture is the impact the company could have on the whole society's culture. Sixth, the scale of outreach is the dimensions of the relationships built by the company with its stakeholders geographically and over time. Seventh, the end user part is how the company's activities improve each customers' lives. Eighth, social impacts include the social costs that appear due to the company's activities. And in ninth place, social benefits are the positive social externalities that happen thanks to the company's activities (Joyce & Paquin, 2016).

2.3.1 Kiabi

Check Figure A13.1 to see the graphical version of the Triple Layer Business Model Canvas for Kiabi.

2.3.1.1 Economic

Partners: Kiabi's key partners are its suppliers, located in 12 different countries, divided in three categories (KIABI, 2020): Type 1, manufacturing suppliers with which Kiabi has direct contact; Type 2, the direct suppliers of Kiabi's Type 1 suppliers, which can be spinners, weavers, knitters, dyers, faders, accessory suppliers (buttons or zippers), and which can be nominated if they offer standard raw materials, and non-nominated, if they do not; And Type 3 suppliers, which are other spinners or fiber suppliers with which Kiabi has an indirect relation. Kiabi also has partners for the activities after the useful life of the garments such as the project Le Relais, to organize clothing gathering campaigns in France or the *Agence du don en Nature* to which it donates clothes that have not been sold (KIABI, 2020).

Activities: As observed in Kiabi's value chain analysis, the company's primary activities are the research and development, product design, and when the company receives the finished

goods from its suppliers, it does the distribution, retail and marketing of the goods, and provides services to its customers. Kiabi's key activities also involve secondary ones such as materials and equipment, firm infrastructure, human resources and systems and solutions.

Resources: Kiabi disposes of its distribution channels in 19 different countries (KIABI, 2020), its brand, its expected long-term relation with the suppliers, its relation with customers, its relationship with its franchisees, and the IT infrastructure used of its on-line shop.

Value Proposition: To create fashion for everyone, at reasonably low prices.

Customer Relationship: Kiabi engages its customers with the use of a free membership card in which they can accumulate points: each Euro spent is equivalent to 1 point, and when they reach the 300 points, customers receive a 15% discount (KIABI, n.d. c)

Channels: Kiabi is able to get in touch with its clients with the following channels: Firstly, with physical shops located in 19 countries, secondly, the on-line shop, and thirdly, on-line consumer service, and social media platforms.

Customer Segments: Kiabi has a diverse array of customers, since its value proposition is the inclusivity of the brand. Thus, there are products for men and women, young (besides its lines for babies and children, Kiabi even offers clothes for premature babies) and old people, from small to big sizes (offering until a 6XL, and also offering a line of laundry for women operated from breast cancer), and also for both able and disabled people (with its collections *facile à enfiler* and *x a&k classics*) (KIABI, 2020).

Costs: It has been impossible to find a complete financial report stating the most important costs of Kiabi. However, Kiabi may be approximately incurring the following costs: Firstly, paying its suppliers of raw materials and manufacturers. Secondly, the cost of logistics, including shipping the clothes from the suppliers to warehouses, and to shops or the consumer's homes. Thirdly, since Kiabi is a retailer, its brand image is essential for its success, so Marketing and brand image are other costs. Finally, Kiabi's costs may be related to the secondary activities of the company like general and administrative costs, or human resources costs.

Revenues: There are two main revenue flows for Kiabi: On the one hand, the sale of apparel in physical shops, and on the other, the sale of apparel on-line.

2.3.1.2 Environmental

Supplies and Out-sourcing: The company's suppliers perform the activities of obtaining of raw materials: the fibers, the making of components such as thread and fabric, and the manufacturing and assembly of final products, including the bleaching, dyeing, fading (regular or using laser technology) and finishing of materials, and the cutting and sewing of garments. Energy for all processes is outsourced, as the company does not have its own energy-production methods. Water for all processes is also outsourced, as the company does not have its own water-obtaining and cleaning methods. During the obtaining of raw materials and manufacture, 50,5% of energy is used, 95% of water is consumed, and 84% of water is polluted

(KIABI, 2020). Furthermore, from Kiabi's total Carbon emissions, 2.8 million teq of CO2, 77% are linked to the obtaining raw materials and production of goods.

Production: During the realization of the different primary activities, Kiabi incurs on diverse environmental impacts. Outside of the production activities, Kiabi emits 23% of its carbon emissions. During the logistics and transport of the goods, Kiabi spends 1% of the energy of the value chain, and 3% of the company's carbon emissions. Then during the distribution and sale of its fashion products, the company spends 0.1% of energy, and 8% of total Carbon emissions are due to the transport of the potential clients to the shops (KIABI, 2020).

Materials: Organic or regular cotton, and regular or recycled polyester within others. Also, warehouses, building infrastructure of Kiabi's shops, headquarters and subsidiaries, and logistics network to distribute the garments.

Functional Value: The functional unit that we will use is one garment. Each garment is used for 5.2 years in total, and between 76 and 105 times during its whole lifetime (Klepp, Laitala & Wiedemann, 2020). Then, we calculate the number of times the clothing items were used during a year, so we divide 76 and 105 by 5.2. So, the number of wears of each garment by 1 person throughout 1 year is between 14.6 and 20.2 uses. Thus, the functional value for Kiabi in one year is the number of garments sold in Kiabi that year times the number of uses of each garment in one year. This would provide the number of uses of all clothes sold by Kiabi, so the total number of times that these clothes are being "consumed" or "used" by customers during the time frame of one year.

End-of-life: Kiabi has not built an overall protocol that assesses the management of the end-of-life of its garments. It does this type of activities in France, where Kiabi partners with the project *Le Relais*, to organize clothing gathering campaigns in France to recycle, resell or donate the garments after their useful life. This was a successful campaign in 2019, with the collection of 112 tons of clothing, of which 26% were recycled, 61% were sold in second-hand stores, and 10% were used to make industrial cloth (KIABI, 2020). Kiabi also collaborates with the *Agence du don en Nature* donating clothes that have not been sold to people in need. Kiabi has also created two solidary shops that sell the unsold clothes of its shops, giving them a second life (KIABI, 2020). Kiabi also wants to give a second life to clothes from any brand with the creation of Seconde Main by Kiabi, a combination of on-line and in-person second-hand retail business, expecting 25 new shops to open in 2021(KIABI, n.d. a; n.d. b).

Distribution: Distribution for Kiabi consists first in the shipment of the finished goods from the suppliers in China, Bangladesh, India, Cambodia, Myanmar, Indonesia, Vietnam, Pakistan, Turkey, Ethiopia, Sri-Lanka, and European Suppliers to its warehouses. Kiabi is in the process of reduction or air and air/sea transportation, since they have the most Carbon footprint. Thus, they aim to favor train transportation, and multimodal transport, formed by Barge and train transport, and to decrease truck transportation too. Secondly, Kiabi ships its goods from its warehouses to its subsidiaries and franchises, and to its on-line buyers' homes. Most shipping is by truck, but for more far away locations, it is made by a combination of truck and boat, or even combining truck and boat with plane. Besides, Kiabi also keeps track of the waste of energy of its shops, tries to optimize their use of energy, and makes its distribution more

sustainable by making its suppliers use and recycled Kraft boxes, reusing the recycled plastic and cardboard boxes in the transport operations, and by giving paper or recycled plastic bags in shops (KIABI, 2020).

Use Phase: The use phase constitutes 5% of Carbon emissions of the value chain, 48% of energy use, 5% of water consumption and 16% of water pollution (KIABI, 2020). To make customers conscious of the environmental effects of the use phase, Kiabi aimed to put written signs in the shops explaining how to maintain its clothes in shape while saving water and energy in 2020.

Environmental Impacts: Kiabi's entire value chain emits 2.8 million teq of CO2. Even if Kiabi takes action to reduce its energy waste and carbon emissions, these are still of a considerable amount. Fully integrating these measures in the value chain can take years, during which Kiabi will perpetuate its carbon dioxide emissions. Kiabi has not published data on the total quantity of water waste and pollution. Even if some changes with the objective of reducing water waste and pollution are made in the obtaining of raw materials, manufacturing, and during the use of products, they are not fully implemented in the whole value chain, nor to all products. Thus, the application of these measures may take years, during which the company will keep wasting and polluting water. Kiabi has not published data on the total quantity degraded soil, but it is possible to conclude that Kiabi's activities lead to soil degradation, specifically in the obtaining of cotton due to the use of chemical pesticides and fertilizers. Furthermore, even if Kiabi is trying to increase the production and sale of garments made of sustainable materials, the implementation of this in all garments may take a long time, and during the process soil degradation will be perpetuated.

Environmental Benefits: The Use of organic cotton as a raw material for 25 341 418 sold garments in 2019, which decreases the consumption of water and energy by 90% and 60% respectively. The use of organic cotton as a raw material also avoids soil degradation by not using chemical pesticides and fertilizers. The use of recycled polyester as a raw material in around 100,000 sold pieces in 2019, reduced the use of petrol-based materials. The use of laser fading of 2 550 000 pieces in 2019 implied the saving per product of 10 liters of water, 22 grams of chemical substances, 184 grams of stones, and 0.17 kw of energy and 0.15 washing minutes. There was a reduction of energy waste in France's shops by 34% between 2014 and 2019 (decrease from 193 to 127 Kwh/m^2), and reduction of energy waste in Italy's shops by 8% between 2014 and 2019 (decrease from 192 to 184 Kwh/m^2) (KIABI, 2020).

2.3.1.3 Social

Local Communities: Kiabi searches to build long-lasting relationships with its suppliers, in which both parties are able to grow and improve their activities. Thus, Kiabi has established a series of ethical rules and codes of conduct that govern the relationship with its suppliers, which includes the safety and fairness of the working conditions, using international norms such as the UN charter and the International Labor Organization, the universal human rights declaration, and local labor legislation. When Kiabi selects its partners, the company performs a complex audit that must be approved by several of the company's stakeholders to ensure that the partners comply with the company's ethical, environmental and quality expectations.

Kiabi constantly communicates its objectives to its suppliers through annual assessments of the supplier's quality and efficiency performance, but also regarding the company's social and environmental standards. This is done through annual social and environmental auditing to Type 1 and some Type 2 suppliers. Kiabi engages directly in the community of one of its suppliers' territories: Bangladesh, through the *Dreams School Project.* Here, Kiabi supports two Bangladeshi schools: The Sylhet school, providing 400 boys and girls in rural areas an education, and the Ashulia school that teaches professional knowledge to 400 young women. Regarding the activities after the useful life of the garments, Kiabi's partnerships with the project *Le Relais*, and with the *Agence du don en Nature* shows the involvement of Kiabi with the French local community. The company also engages with the customer's community through the Kiabi Foundation, which organizes activities for the support of employment, education, health and wellness of people in those territories (KIABI, 2020).

Governance: Kiabi is a privately-owned company with a very clear hierarchy. Below the shareholder of the company are the HR, finance and informatics directors, and below them are three key departments: the value chain department, in charge of the well-functioning of the entire value chain, the customer and brand department, which ensures the quality of marketing and web services to the customers, and the commerce cross canal, which aims to manage the different operations that take place in each country where Kiabi offers its products (KIABI, 2020). In fact, in 12 of the 19 countries where the company is present, it is under the form of franchise, so Kiabi must ensure the flow of information to them, and must enforce quality standards of the products and services of its franchisees. Regarding transparency, Kiabi offers information about its financial state, and provides extra-financial data of the company, regarding its social and environmental results and plans.

Employees: Employees are an essential stakeholder in Kiabi's business model. In 2019, the total number of Kiabi's workers in all countries is 10,053 (KIABI, 2020). Employees work in teams formed by the Kiabers (the name the company gives to employees) and are led by Team Leaders. Kiabi aims to promote diversity towards their clients, but also among workers, by hiring people of different ages, genders, cultural origins and health situations. The proportion of women in the company's teams is higher than men, but this is not translated in managerial positions. Kiabi had in 2019 more than 400 workers with disabilities, which were mainly in France and in Spain. Kiabi favors the insertion of this type of workers with its *Handi-Kap* policy, which provides education, and supports them to reach their full potential in the company. Kiabi has several employee-oriented programs covering different aspects: Firstly, with security programs, the company provides education on prevention of different risks. Secondly, Kiabi provides fair wages to all its employees, aiming for wage parity between men and women. For instance, in 2019, the index of men-women salary equality is 97% in France, in Russia all workers in the same position earn the same, and in other countries the company also applies wage equality. To ensure that workers have Work/Life equilibrium, the company allows flexible timetables and telecommuting. Kiabi also promotes the growth of employees inside the company through inside schools and personal development programs such as the Kiabi Foundation, in which 7000 workers are engaged. Kiabi also promotes the ownership of shares by its employees, and, having 65% of its employees as shareholders in 2019. This

makes Kiabi's employees more engaged in its success. Finally, Kiabi won in 2016 and 2017 the Great place to work prize in Spain, Italy, France and Asia (KIABI, 2017).

Social Value: Kiabi's products are inclusive, and try to provide clothes of reasonable quality to any type of client regardless of their gender, age, size or ability. Kiabi develops long-term relations with its suppliers to increase value creation for both parties.

Societal Culture: Culture of happiness at work, and happiness of customers. The company even created the Happy Kiaber barometer that allows the company to understand the level of satisfaction of workers in the company, and to express their worries and concerns. In 2019, the mean satisfaction of Kiabi's customers was 8.3/10, and 80% of Kiabi's workers were satisfied to work there (KIABI, 2020). Culture of responsibility through the development of sustainable practices and initiatives in environmental and social terms.

Scale of Outreach: Kiabi is present in 19 countries, and in 12 of them it appears under the form of a franchise. Kiabi's 508 shops are located in: France (332 shops), Spain (55 shops), Italy, (34 shops), Portugal (7 shops), Belgium (6 shops), Malta (2 shops), Poland (2 shops), Russia (20 shops), Morocco (16 shops), Algeria (3 shops), Tunisia (4 shops), Saudi Arabia (9 shops), United Arab Emirates (3 shops), Senegal (1 shop), Ivory coast (1 shop), Gabon (1 shop), Republic of Congo (1 shop), La Réunion (3 shops), Guadeloupe (3 shops), Martinique (2 shops), Guyane (1 shop), and Brazil (2 shops) (Kiabi report 2019). Kiabi's suppliers are present in 12 countries, excluding European suppliers: Bangladesh, China, India, Indonesia, Morocco, Pakistan, Turkey, Sri Lanka, Ethiopia, Vietnam, Cambodia, and Myanmar (KIABI, 2020).

End-User: All customers, regardless of their gender, age, size or ability are able to find clothes that fit and look well. Buyers can choose products that are produced with more sustainable materials and processes. The products sold by Kiabi have a good quality-price rate.

Social Impacts: One negative social impact is the fact that there is no gender parity in Kiabi's management, since there are not many women. Another negative social aspect is the fact that Kiabi does not audit all Type 2 and Type 3 suppliers. For Type 2 suppliers, only the factories of nominated ones are audited, and none of the Type 3 suppliers are audited. This leaves open a loophole in which human rights could be disrespected and working conditions could not be optimal for workers.

Social Benefits: Kiabi provides many social benefits. In the countries from suppliers and also the countries where Kiabi sells its goods, Kiabi's activity creates employment, which is positive for the development of certain regions. Additionally, Kiabi has strict policies for the fair treatment of suppliers as it aims to build long-lasting relationships with them. Also, Kiabi ensures the respect of Human Rights in all of its value chain, including the majority of its suppliers. Finally, Kiabi also acts complying with all regulations.

2.3.2 Percentil

Check Figure A13.2 to see the graphical version of the Triple Layer Business Model Canvas for Percentil.

2.3.2.1 Economic

Partners: The main partners that Percentil has are the NGOs to which Percentil donates clothes that are not put on sale due to their imperfect state, or that have not been sold after 4 months, like *Fundación Infancia*, *Misión Internacional Llamada de Esperanza*, and in some particular cases, *Comisión Española de Ayuda al Refugiado*, and *Oxfam Intermon* (Annex 12b). To send the bags so Percentil's sellers/suppliers can put their old clothes, Percentil uses the mailing services of Correos. The other companies with which Percentil works for the transport of clothes are not disclosed on its webpage or press releases. Percentil also has some logistics partners that include Celeritas in Spain, and Mondial Relay in France and Spain (Percentil, n.d. b; n.d. c; n.d. d).

Activities: Percentil's key value chain activities are: the transport of the seller's bags to their warehouse in Madrid, the selection process of the clothes that will be sold on the on-line shop, the recycling or donation of the ones that do not live up to the standards, after that, the categorization and posting of the items on the on-line shop, the marketing of the products and the website, and the operations to make items arrive to the buyers.

Resources: Since Percentil is an on-line second-hand consignment selling and buying platform, its main resources consist of its distribution channel, and IT infrastructure of its on-line shop. Another resource is Percentil's warehouse, where the company does the selection of the clothes for sale. The company also has enough financial support that it does not charge the sellers for the shipping costs of their old clothes to the warehouse, Percentil covers it. Finally, its brand is another resource because customers know that Percentil ensures the sale of products in good shape to its customers.

Value Proposition: Percentil offers second-hand products from 20,000 brands at low prices, and guaranteeing their good state (Annex 12a).

Customer Relationship: Percentil maintains and improves its relationship with its customers through its webpage, which is transparent and provides all kinds of details about the second-hand garments.

Channels: The main channel through which Percentil maintains its relationship with its users is the webpage, where they can do the process of sale and purchase of garments. Percentil also keeps in touch with customers through on-line consumer service, and social media.

Customer Segments: The company started as a business of purchase and sale of second-hand baby and children clothes, so parents, mothers in particular, are an important target of the company (Percentil, n.d. a). Besides focusing on mature women, the company offers clothes young women, as well as for men of all ages. The particularity of Percentil is that its products are from a wide range of prices and brands, so it adapts to the budget of every person.

Costs: There are no public financial records that explicitly state which are Percentil's main costs. However, it is possible to infer that its main expenses are the transport of the goods, human resources and salaries of its workers, the IT equipment and webpage costs, the marketing of the company, and costs related to the warehouse.

Revenues: The only source of revenue is the sale of second-hand garments in the on-line shop.

2.3.2.2 Environmental

Supplies and Out-sourcing: Correos transport the bags where Percentil's sellers/suppliers can put their old clothes. Other undisclosed mailing companies transport the bags filled with clothes for sale to the warehouse, and also ship the sold garments from the warehouse to the buyer's pick-up point. Celeritas, in Spain, and Mondial Relay in both France and Spain provide pick-up spots where customers can go get their orders from Percentil, and also places where supplier/sellers, or users returning a piece, can leave their bags, so the mailing company can take it again to Percentil's warehouse. Outsourcing of the Energy for all processes as the company does not have its own energy-production methods. Outsourcing of Water for all processes as the company does not have its own water-obtaining and cleaning methods.

Production: Percentil does not produce the goods it sells from scratch since it trades second-hand clothes. This makes the company avoid all the negative environmental impacts of the production of new clothing items. However, we could consider the selection process of clothes, in its Warehouse, and the ironing of clothes for the pictures, taking pictures, categorizing the items and posting them on the on-line shop as the production part of the company, and where much of the energy consumption of the company would be concentrated.

Materials: Since Percentil trades with second-hand clothes, the company does not use raw materials for their creation, so the company avoids all the negative environmental externalities of the use of raw materials like cotton or polyester. However, during its value chain activities, Percentil needs other types of materials such as bags, and hangers of the clothes at the warehouse. These are re-introduced into the system once the item that was on them is sold, which reduces waste (Annex 12c). Percentil also requires ironing machines to prepare the clothes to take the pictures for the on-line shop, and photography equipment, as well as IT equipment in order to keep track of the on-line shop. If this equipment is not recycled at the end of its life-cycle, it could be a source of pollution from Percentil.

Functional Value: The functional unit that we will use is one garment. Each garment is used for 5.2 years in total, and between 76 and 105 times during its whole lifetime (Klepp, Laitala & Wiedemann, 2020). Then, we calculate the number of times the clothing items were used during a year, so we divide 76 and 105 by 5.2. So, the number of wears of each garment by 1 person throughout 1 year is between 14.6 and 20.2 uses. Thus, the functional value for Percentil in one year is the number of garments sold in Kiabi that year times the number of uses of each garment in one year. This would provide the number of uses of all clothes sold by Percentil, so the total number of times that these clothes are being "consumed" or "used" by customers during the time frame of one year.

End-of-life: Percentil's value proposition is giving a second life to almost-new second-hand garments. So, when a fashion item has reached the end of its life for its previous owner, they can send it to Percentil, letting the company be in charge of selling it to its new owner. If any item is discarded throughout the selection process, or not sold after four to seven months on the on-line shop, three options are offered to the seller: either recover the item, recycle it, or

donate it to NGOs (Annex 12a). In fact, if the items sold in Percentil have reached the end of their life, Percentil's buyers can become sellers, sending them back to the company. Percentil can either resell them, if they are still in good shape, recycle them or donate them to elongate their life to the maximum.

Distribution: Percentil does not disclose either on its website or in its press releases which mailing companies it uses to transport its garments. However, they mention the use of Correos for the transports the bags where Percentil's sellers/suppliers can put their old clothes (Percentil, n.d. c). If all other transport operations were done with Correos, they would mostly be done by truck or van. These are polluting means of transport, since vans and trucks, added to busses and cars, amount for 70% of transport pollution (Agencia Europea de Medio Ambiente, 2020). Celeritas and Mondial Relay are at the beginning and end of the distribution processes. This does not have a negative environmental impact, since it just adds another activity to do to the businesses that act as pick up points, which are usually local shops. (Percentil, n.d. b; n.d. c; n.d. d)

Use Phase: Percentil requires the clothes sent to them to be clean (Percentil, n.d. c), which will make the customers have to wash at least once each item sent. This means some water waste and pollution. When the buyers use the garments bought in Percentil, they will wash and maintain them during their life-time, leading to water waste and pollution, and to energy consumption.

Environmental Impacts: The main source for negative environmental impact for Percentil is the transport of the garments done by truck, if we follow the hypothesis that Percentil's mailing company is Correos (Nuin, 2017), which leads to CO2 emissions.

Environmental Benefits: Percentil's value proposition revolves around the environmental benefits of selling and purchasing second-hand fashion items. Firstly, thanks to not producing goods, Percentil does not need to produce new raw materials, so the company avoids producing cotton, the water waste and pollution caused by pesticides, and soil degradation due to the use of fertilizers and pesticides. Also, the company does not need raw materials like polyester, which are petrol-based, thus, less sustainable. Secondly the company does not manufacture goods, avoiding the water waste and pollution that these activities entail, and reducing drastically the potential carbon emissions of the company. Finally, by being an e-commerce, Percentil does not have any physical shops, so its energy waste is lower. In addition, the increase of the useful life of garments from one year up to two years decreases by 24% the emissions throughout the year (Carbon Trust, 2011). So, by elongating the life of clothes, Percentil's business model per-se decreases Carbon emissions.

2.3.2.3 Social

Local Communities: On the one hand, Percentil benefits the Spanish, French and German communities by providing second-hand fashion in a good state at discounted prices. On the other hand, the fact that Percentil collaborates with different NGOs also benefits people in need from such communities.

Governance: As a private company, Percentil aims to engage its stakeholders, including its employees, as well as the users of the platform that donate their clothes, and the users who buy them to create value.

Employees: Percentil has now approximately 50 employees, and most of them are women. In 2018, there were 32 women and 11 men working at Percentil (SABI, 2020). Furthermore, two out of the six managers of the company are women (SABI, 2020), so Percentil is on its way towards gender parity also in management. The company promotes female entrepreneurship and work/life balance.

Social Value: Percentil improves the lives of its users by creating a network through which they can declutter their wardrobe in a sustainable way, at the same time earning some money, and where they can also buy clothes from their favorite brands at reduced prices, giving them a second life.

Societal Culture: Culture of circularity, and of giving a second life to clothes. Culture of environmental responsibility, as purchasing of second-hand clothes prevents the consumption of new clothes, thus reducing their environmental impact (Annex 12c). Culture of solidarity, by donating some of the clothes to NGOs.

Scale of Outreach: For now, Percentil's users are in France, and Germany, besides Spain with specific websites for each country. The company will soon expand its business to the Netherlands.

End-User: In Percentil, end users find discounted second-hand clothes from many brands. There is a great variety of clothing sizes and styles, which makes it easy for them to find pieces they will like. It is also a great service for parents, because, as kids grow very fast, they need new clothes in short intervals of time. Percentil also offers a sustainable way of buying clothes.

Social Impacts: Sellers can oftentimes be discouraged if they send Percentil clothes that they perceive to be in good shape, and for which they expect to receive some money, but that do not pass Percentil's selection process. Also, Percentil does not provide enough information on its website or press releases about the environmental impact of the company, including negative aspects of it. This lack of transparency can make clients suspicious of the sustainability of some of the company's processes, like the transport of the products.

Social Benefits: Firstly, Percentil collaborates with NGOs, providing second-hand clothes to people in need. Secondly, the company has a close relation with its website's users, and gives the sellers the opportunity to earn money thanks to their old clothes. Thirdly the company allows buyers with adjusted budgets to buy clothes. And fourthly, the company aims to create a new social habit of selling second-hand clothes, which is good for the environment too.

CONCLUSIONS

All the objectives that were proposed in the introduction have been accomplished throughout this FDP, which now leads to the resolution of the research questions and to the confirmation or dismissal of the proposed hypothesis.

Q1: Is the fashion industry as we know it today sustainable? Hypothesis 1 (H1), which tried to answer Q1, was that the fashion industry as we know it today is unsustainable, and fast fashion business models are at the root of the unsustainability of the fashion industry.

Throughout the theoretical part of the project, it has been possible to observe that the fashion industry as it exists right now is not sustainable, and that problems arise from all the dimensions of sustainability, which confirms the first part of H1. From the environmental perspective, the fashion industry harms the planet by emitting important quantities of CO2, by wasting and polluting water, by degrading the soil, and by generating waste that pollutes land through landfills and the air when it is burnt. From a social point of view, some consequences of the fashion industry are gender inequality and GBV, dangerous working environments, bad schedule and salary conditions for factory workers, child labour, and poor environmental practices that affect the locals. Finally, from the economic dimension, the global economy as a whole is losing money from the current unsustainable functioning of the fashion industry, and fashion companies themselves could incur in losses if they do not invest in more efficient and ethical water, energy, waste and labor management.

Furthermore, as stated throughout the theoretical part and specifically in the section 1.2.3, fast fashion is at the core of the issues presented above, thus confirming the second part of H1. Fast fashion is based on the rapid response to consumer's changes of taste, and leads to the production of an increased number of small-sized collections or lines of products that stay in the stores for a short period of time, which requires a continuous use of the planet's natural resources and leads to pollution. This also worsens the working conditions of the usually subcontracted suppliers of raw materials and manufacturers, which are expected to produce increased amounts of clothes in short time spans, and at cheap prices, allowing fast fashion companies to compete by applying economies of scale, leading to its extreme: the race to the bottom. Also, the fact that fast fashion companies are so focused on their economic growth is rooted in the level of competition of the fashion industry, as companies that do not grow or differentiate themselves are threatened to disappear from the market. This focus on economic growth perpetuates the sustainability problems caused by fast fashion, and, as stated before, could also be a reason for the future economic losses of fashion retailers.

Q2: Which are the similarities and differences in terms of sustainability of fashion retail companies with a fast fashion business model and fashion retail companies with a business model related to the circular economy?

Throughout the practical part of this FDP, we have studied two companies: Kiabi Europe and Percentil. On the one hand, Kiabi is a fast fashion retailer that has a linear business model structure, and on the other hand, there is Percentil, a second-hand fashion consignment on-line retailer, with a business model based on the concept of circular economy.

Firstly, we analyze the similarities and differences of the two companies in terms of economic sustainability. Kiabi and Percentil have in common only one source of competition, as seen in the 5 Porter's forces analysis: the bargaining power of buyers. Besides, since the companies' activities are quite different, Kiabi's other strong competition forces are the threat of substitute products, and the competitive rivalry within the fashion industry, and for Percentil these are the

bargaining power of suppliers, and the threat of new entrants. In other words, while Kiabi's main threats are its current rivals in the industry, and how their growth forces Kiabi to also innovate and grow to avoid being eliminated from the market, Percentil is threatened not only by the power of its suppliers, which are users of its on-line platform, but by the potential big new entrants like Zalando, or Kiabi to the second-hand retail market. Another difference is that Kiabi Europe, created in 1987 (AMADEUS, 2020) has been in business for more years than Percentil, established in 2012 (SABI, 2020). This logically means that Kiabi has a larger distribution network that reaches 19 countries with which it has had time to build long-term relations. This is not the case for Percentil, present in 3 countries, and still in the process of cementing those key relationships for its economic growth. Also, Kiabi has more channels than Percentil to reach its customers, but if we take into account the difference of the value chain activities and the type of company of Kiabi and Percentil, this gap is logical: Percentil does not need to have physical stores to be more economically sustainable. An additional aspect in which Kiabi and Percentil differ is that Kiabi engages with its customers through free membership cards, something that Percentil does not offer as its prices are already discounted on the website. Moreover, Kiabi and Percentil have similar customer segments as both try to cover as many market segments as possible. However, Kiabi is a bit more polished in this aspect since it offers specific products for specific niches: for people with disabilities, for women operated from breast cancer, for plus-sized people. Meanwhile, Percentil depends on the articles sent by the users of its webpage, not being able to do the same. For Kiabi, costs are more distributed than for Percentil, since the former has to include the payment of Raw materials and manufacturing. However, the two companies have their revenues concentrated on the on-line sales (for the two) and physical sales (for Kiabi).

Secondly, it is interesting to compare the treatment of the environmental dimension of both companies. The biggest concentration of negative environmental impacts happens for both Kiabi and Percentil, through the outsourced activities, but they have very different natures and dimensions. On the one hand, Kiabi outsources the obtaining of raw materials production of the garments, which has numerous negative environmental impacts, including Carbon emissions, water waste and pollution, energy waste and soil degradation. Because of that, Kiabi has created several initiatives to produce its goods with more sustainable materials and processes, but the number of garments ecologically conceived are still a minority in its catalogue. On the other hand, since Percentil does not use raw materials nor manufacture any new garments because it does not make its products from scratch, the company does not incur these types of environmental damage. However, Percentil's outsourcing of the transport of its supplies and orders lead to carbon emissions, which is something it has in common with Kiabi. Also, in both cases, the use phase is another part of the value chain where many negative environmental impacts like water waste and pollution and energy waste happen, rooted in the washing, drying and maintenance of the garments. A notable difference exists between Kiabi and Percentil regarding the management of their products at the end of their life: Kiabi does not have a homogeneous protocol for all the regions in which is present, while Percentil's value proposition is precisely giving a second life to clothes at the end of their life.

Last but not least, it is also crucial to compare the approaches the two companies have regarding social sustainability. First, both companies collaborate with NGOs, to which they

donate unsold clothes so that people from local communities in need can use them. Another aspect that Kiabi and Percentil have in common is that they both offer clothes that include many different customer segments, and also at low costs, being available for any budget. However, the way to achieve these low prices is very different. On the one hand, Kiabi uses economies of scale to reduce costs and prices. On the other hand, Percentil, by selling second-hand clothes that only cost the price of shipping them to the warehouse and which are directly priced by Percentil, allow the company to discount their price to make the pieces more attractive to consumers. One core difference between Kiabi and Percentil is that while Kiabi proposes a culture of environmental responsibility only through a line of environmentally sustainable garments, Percentil offers a drastic change on the way in which its customers consume fashion and aims to create new responsible habits for its users. The two companies also differ in that Percentil respects gender parity in all aspects: in the employees' ratios and also in management, and Kiabi only applies it for employees, not in the management. However, Kiabi offers many programs for its workers to grow inside of the company, and Percentil gives little to no information about this aspect. Finally, Kiabi provides much more public information on its economic, environmental and social sustainability than Percentil, something that the latter should try to implement because, since its business model comes from the circular economy, transparency would be beneficial for the company and its users.

For the moment, Kiabi is sustainable in the economic dimension, being a well-established company in many countries and with a consolidated network, although the competition from other fast fashion retailers is very high. Kiabi is also very close to being socially sustainable, except for the lack of women in its management, and the lack of auditing of its type 3 suppliers for full transparency. However, the environmental sustainability of the company is the most preoccupying. Kiabi has put in place many initiatives to improve on environmental aspects throughout the whole value chain, but none of them are fully developed and applied throughout all of the activities. For instance, the company is increasing the amount of environmentally respectful raw materials and processes to make its clothes, and to change the distribution methods of its goods to reduce carbon emissions, but these changes are implemented very slowly and most of the goods produced and sold by Kiabi are unsustainably obtained. Moreover, the creation of Seconde Main by Kiabi, including the on-line platform for the sale and purchase of second-hand clothes, and the opening of 25 second-hand shops during 2021 can be interpreted as either Kiabi trying to make its business more sustainable, or Kiabi trying to compete with larger digital and non-digital firms like Zalando or H&M's COS, which are also stepping into the second-hand retail sector. Nevertheless, this can also be translated as greenwashing: the actions that in theory will improve Kiabi's sustainability do not change the business as a whole to make it fully sustainable, and, in fact, Kiabi is using them as marketing tools to be more ethical and environmentally respectful in the eyes of the consumer. It is concerning that Kiabi is using many resources in the development of a new business unit, even if it is more sustainable, instead of fixing the existing sustainability problems of its value chain. In fact, it is possible to affirm that Kiabi works constantly through the dilemma of either becoming sustainable, or staying afloat in the fast fashion market. So, in conclusion, it is possible to confirm H2: fast fashion retail business models –like Kiabi– are indeed not sustainable, and are limited to do greenwashing.

It is undeniable that Percentil's business model is circular as it offers a loop that can feedback resources to itself during a prolonged period. Furthermore, its business model prevents much of the negative social and environmental impacts of fast fashion companies, avoiding the procurement of raw materials and manufacturing of the goods, since it does not have to produce brand new products. However, one criticism that could be made to the company is the lack of public reports on the environmental impacts of the whole process of the company. This may be due to the fact that the company is still small, and it does not have enough resources to measure and calculate all these effects. Having more information about Percentil's sustainability would give a tool to the users of its platform to be aware of the positive and negative impacts of the company's activities. Also, in economic terms, the company is clearly threatened by new entrants in the market, which will offer similar services as Percentil. It is crucial for Percentil to offer as much transparent information as possible about the social and environmental benefits this company for the users of its platform, in order to differentiate itself from the big new entrants to the second-hand retail market like Zalando or Kiabi, and to be economically sustainable in the short and long run. Besides, it is possible to affirm that Percentil is not fully environmentally sustainable because, although Percentil offered little information on the mailing companies that transport their goods, most of the available means to transport them would produce CO2 emissions. Thus, one handicap for Percentil, but also for other companies with business models based on the circular economy is the dependency on other companies which are not circular. In other words, it is very complicated for a circular business to be completely sustainable when the majority of other businesses with which it can form partnerships are neither sustainable nor circular. In conclusion, it is only possible to partially confirm H1: the fashion retail companies conceived from a circular economy perspective– like Percentil– are not fully sustainable. On the one hand, the circularity of their business model does make them way more sustainable than fast fashion companies from a social and environmental point of view, but on the other hand, the interaction with non-sustainable companies prevents them from reaching full sustainability.

Circular business models could be a way to make the fashion industry more sustainable, and become an alternative to fast fashion business models. In the years to come, it will be interesting to study more in depth the strengths and weaknesses of the current circular fashion business models, to which degree can circular fashion companies compete against fast fashion companies, and how the implementation of circularity in other industries interacting with the fashion industry could lead to innovation and to the increase of its sustainability.

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ANNEXES

Annex 1- The 2030 Agenda for Sustainable Development

In order to address the sustainability issues happening worldwide, which include the ones mentioned before from the fashion industry, in September 2015 the UN General Assembly adopted the 2030 Agenda for Sustainable Development. Formed by 17 Sustainable Development Goals, and 169 targets, this agenda is unprecedented, since it is accepted and applicable to all countries, both developed and developing (United Nations, 2015). It aims not only to involve Governments, parliaments, UN systems and other international institutions, but also local authorities, indigenous peoples, civil society, business and the private sector, and the academic community within others.

Furthermore, since all the actors above can, and should apply the Sustainable Development Goals (SDGs) for 2030 in their strategies, it is possible to affirm that the fashion industry should take them into account. Moreover, the increase of sustainability of the fashion industry would help all 17 SDGs (Yeoh, 2020) which are depicted in Figure A1.1.

Figure A1.1: The sustainable development goals

Source: United Nations, 2018

Furthermore, in March 2019, the UN Alliance for Sustainable Fashion launched in order to coordinate UN agencies like for instance the UN Development Program, the UN Economic Commission for Europe, UN Environment, UN Global Compact and the United Nations Office for Partnerships, and allied organizations such as the World Bank, the International Labour Organization, and ITC Ethical Fashion Initiative (Fashionabc, n.d.), with the intention of fulfilling the SDGs in the fashion industry (UN Alliance for Sustainable Fashion, n.d). As stated above, the fashion industry could make important contributions in many, if not all, of the SDGs for 2030.

From an environmental point of view, the fashion industry's increased sustainability could have a positive effect to attain SDGs number 3,6,13,14 (UNECE, 2018). Firstly, by decreasing the number of pesticides and insecticides used in the growing of cotton, the fashion industry would be implementing the SDG 3: ensuring healthy lives and well-being (United Nations, 2015) as it would be avoiding the health issues that come from the use of such chemicals. Secondly, decreasing the amount of water waste would be contributing to the SDG 6: ensuring the availability and sustainable management of water and sanitization (United Nations, 2015), since a decreased amount of wastewater would grant more clean water and make water sanitization easier. Thirdly, a decrease in the carbon emissions would play a part in the success of the SDG 13: Take action to combat climate change and its impacts (United Nations, 2015). Fourthly, the fashion industry could contribute in the SDG 14: Conserve and sustainably use the oceans, seas and marine resources (United Nations, 2015) by decreasing the amount of plastic entering the ocean because of this industry.

From a social perspective, the fashion industry could work towards the fulfillment of the SDGs number 3 and 8 (UNECE, 2018), since an improvement of the working conditions in the industry, and the decrease of the amount of hazardous chemicals used in the production would attain SDG 3: ensuring healthy lives and well-being (United Nations, 2015) with the latter measure, and SDG 8: promoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work (United Nations, 2015) with the former measure.

Finally, from a perspective both environmental and social, it is important for the fashion industry to have in mind SDG 12 (UNECE, 2018): ensuring sustainable consumption and production patterns. The current predominant business model in the fashion industry is fast fashion, which pressures people and the environment to increase productivity and decrease prices, is unsustainable as stated in previous sections (United Nations, 2015). Furthermore, a change in the core production and consumption patterns would be key for the fulfillment of SDG 12.

In addition, from the SDG 17: strengthening the means of implementation and revitalizing the Global partnership for Sustainable Development (United Nations, 2015), it is possible to conclude that different actors will have to work together in order to achieve the 2030 agenda for Sustainable Development (UNECE, 2018). Thus, the existence of an institution such as the UN Alliance for Sustainable Fashion is not only logical, but necessary to implement the SDGs in the fashion industry.

Annex 2 - Institutional Context and Upgrading of the Fashion Industry

The extensive number of quotas and trade agreements that existed from 1974 until 2005 are the institutional explanation of the subcontracting of production in developing countries nowadays. In 1962, the General Agreement on Tariffs and Trade (GATT) created the Long-Term Arrangement Regarding International Trade in Cotton Textiles and Substitutes, extended in 1974 with the Multi-Fiber Arrangement (MFA). During the 30 years that the MFA lasted, its goal was to shield developed countries from the imports of products at cheaper prices from developing countries. This trade framework boosted the emerging apparel industry of many smaller developing countries thanks to the quotas and duty-free imports into leading markets, and protected them from competitors like China, which provided products at low-costs.

Between 1995 and 2005, because of the World Trade Organization's Agreement on Textiles and Clothing, the MFA was progressively terminated, and so did quotas that limited imports from developing to developed countries. During this period of adaptation, various unilateral trade agreements and preference programs were put into place to mitigate the effects of this change, and allowed many small developing Asian countries such as Bangladesh, Cambodia, China, India, Egypt, Nicaragua and Pakistan to continue competing in the international fashion industry (Gereffi & Fernandez-Stark, 2011).

Thanks to the MFA, Asian suppliers were able to offer not only assembly activities, but a new range of roles, such as Original Equipment Manufacturing, Original Design Manufacturing, or even Original Brand Manufacturing from the 1970s onwards. These are called the stages of functional upgrading in the fashion industry value chain.

The first stage of upgrade is the assembly of products, also known as Cut, Make, Trim (CMT), usually done by subcontracted companies, which are provided with raw materials, such as fabrics, threads, etc., and have to produce apparel items for the customer. These types of companies do not get involved in the design of the garments as they are just manufacturers, and have become obsolete because the conservation of interdependent buyer-supplier relationships is very costly for the lead firm, and because of its complexity. Secondly, we must consider the Original Equipment Manufacturing (OEM or Package Contractor) business model, where the subcontracted company is able to purchase the materials, and to manufacture the finished apparel goods. In this case the subcontracted company follows the requirements, design, and uses the materials provided by the retailer or brand company. In addition, the subcontracted company is able to finish and package the goods in order to transport them to the retail outlet. The third stage of upgrade is the Original Design Manufacturing (ODM or Full Package), in which the subcontracted company is also in charge of the design of the products in addition to all other steps to produce a fashion item. Finally, there is the Original Brand Manufacturing, or OBM, which is a business model specialized in branding instead of manufacturing or design. This implies the upgrading into the sale of the products of the company's brand (Gereffi & Frederick, 2010). Information in Figure A2.1, although it is from 2010, shows that the countries that provide the different types of subcontracted business models explained above are concentrated in companies in developing countries, and specifically in Asian ones.

After checking the types of subcontractors, it is interesting to also study the types of lead companies of the fashion industry's GVC. Three main types of lead can be distinguished: retailers, brand marketers and brand manufacturers.

Firstly, we must consider retailers, which can be classified as private labels: the retailer is the owner of the brand of the final products, but does not own the manufacturing of such products. Fashion retailers can be subdivided into two categories: mass merchants, and specialty apparel. Mass merchants sell apparel in department or discount stores, where a wide selection of products is sold, and can even own a private label or brand (only available in their stores). Specialty apparel retailers usually create proprietary label brands, which oftentimes have the same name as the store, and the main aspect that distinguishes them from mass merchants and is that they only sell apparel items. Secondly, brand marketers and brand manufacturers

are considered national brands: the manufacturers are also brand owners and multiple retail systems are used to distribute the finished goods. On the one hand, brand marketers own the brand name and distribution, but do not own the manufacturing of the goods. In other words, they may be considered manufacturers without factories, as they outsource the manufacturing of the garments. On the other hand, brand manufacturers own or have a close relationship with the whole production process: the manufacturing, the insertion of raw and intermediate materials into the CMT process, the distribution and the brand name (Gereffi & Frederick, 2010).

Figure A2.1: Summary of Country Capabilities with Examples

Functional Capabilities	**Supplier Tier**	**Recommendations; Key Facilitators**	**Country Examples**
Cut, Make, Trim CMT (Assembly)	Marginal Supplier	Promote upstream FDI. Government and regional organizations. Lead firm to commit to long-term supply.	Cambodia, SSA, Caribbean, Vietnam
Package Contractor (OEM): Sourcing	Preferred Supplier	Invest in machinery and logistics technology. Private investment.	Bangladesh, Indonesia
	Niche Supplier		Sri Lanka, Mexico
Full Package Provider (ODM)	Strategic Supplier	Next step: enter new emerging markets as a lead firm	Turkey, EU, India, China
Service Providers	Coordinators and Foreign Investors		Hong Kong, South Korea, Taiwan, Singapore, Malaysia

Source: Gereffi & Frederick, 2010

Annex 3- Critiques and alternatives to the tridimensional sustainability model

Some authors may consider the three-dimensional model of sustainable development overly simplistic. Although viewing the concept of sustainability as multidimensional can make the analysis more straightforward, showing the three dimensions as “equal sized rings in a symmetrical interconnection” makes the observer see them as separate, thus enabling the prioritization of one or the other, enabling the possibility of trade-offs (Giddings, Hopwood & O'brien, 2002). Thus, the Economic dimension, specifically the capitalist economy, may have been given more importance by governments, businesses and scholars than the other two.

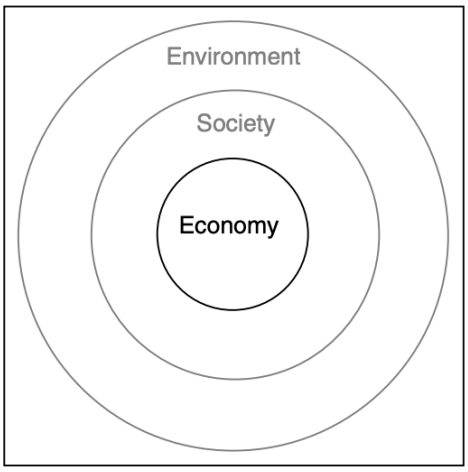
The solution to this issue is the use of alternative models to explain sustainability. The first model that comes to mind is the model of nesting economy in society and environment (Giddings, Hopwood, & O'brien, G. 2002). This model is explained visually in Figure A3.1. The environment is the outer layer of the model and involves society and the economy as human life depends on the environment for its survival, since it extracts all necessary resources such

as materials and energy from it. The middle layer is the society, which can be described as the activities and relationships that make human life. Finally, the Economy is the nuclear layer, and is contained inside both environment and society, so it can be considered as a part or portion of society. It is key to notice that some of the society's needs may be satisfied by the economy, thanks to the production of goods and services, but others are solved outside of the economy like caregiving or domestic work within others. So, in a nutshell, the economy is contained by society. Thus, society, and consequently economy, are contained by the environment. Society cannot exist without the environment, and the economy cannot exist without society and the environment. Furthermore, in order to obtain economic sustainability, social sustainability must be achieved, and to achieve social sustainability, environmental sustainability must be present. So, in order for an economy to be sustainable, environmental sustainability and social sustainability are indispensable.

Secondly, this model can be taken a step further by joining economy and society in just one group or layer. It is necessary to focus on the fact that the economy has to meet human needs, thus, it is joined with society in the layer called Human Activity and Well Being (Giddings, Hopwood & O'brien, 2002). As we can see in Figure A3.2, Human Activity and Well Being is contained inside the environment, since the former needs the latter for its existence, but not the other way around. In other words, the environment may change with a lack of Human Activity, but is not worse off if there is a lack of it. Also, the boundary between them is not unbreakable, it is rather blurry because of their constant interaction.

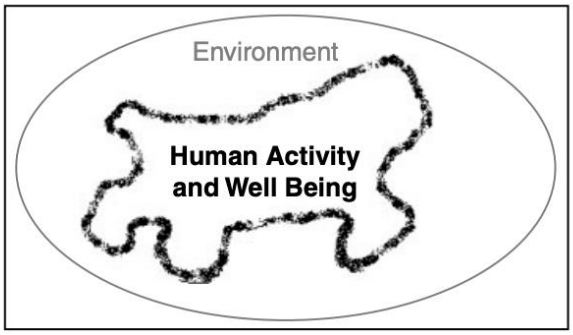
As we have seen in this annex, there are several nuances in the three-dimensional model of sustainability. However, the last mode, which joins social and economic sustainability together into Human Activity and Well Being will not be used in the project. It is an interesting concept theoretically speaking, but in order to do a comparative analysis of sustainability in different types of fashion retail business models, it is necessary to keep in mind all three types of sustainability. As mentioned earlier, there is quite a lot of literature focusing exclusively on environmental sustainability, so evaluating the social and economic dimensions of sustainability as well as the environmental one is also key in this project. Furthermore, since this paper does not focus on macroeconomic sustainability, but on the microeconomic effects on sustainability, it would not be useful to join economy and society in only one category, as the analysis would become too broad. For practicality, the multidimensional sustainability model will be used as the backbone of the project, keeping in mind the model of nesting economy in society and environment, since it establishes in a very clear way the relationship of all three dimensions, and the economic sustainability will be considered purely from a microeconomic perspective.

Figure A3.1: Nested sustainable development



Source: Giddings, Hopwood & O'brien, 2002

Figure A3.2: Union of society and economy and decrease of boundaries with the environment.



Source: Giddings, Hopwood & O'brien, 2002,

Annex 4- Critiques on the application of the Triple Bottom Line

The triple bottom line (TBL) was meant to make businesses stop focusing just on profits, and to include social responsibility and environmental issues in their plans and strategies. However, 25 years after the creation of the term, it has just become an accounting tool for companies. This use of the TBL causes several contradictions (Elkington, 2018). Firstly, accountants and reporting consultants diluted the TBL concept, making companies' annual accounting reports that include the TBL unusable for decision-takers, and policy-makers to track its three parts. Secondly, even after the concept of TBL gained importance, companies' Chief Executive Officers (CEOs) and Chief Financial Officers (CFOs) still consider profit maximization the goal of their businesses, and the social and environmental impacts of their business are viewed as mere externalities. Thus, the TBL has not substituted the concept of the single bottom line. Finally, Elkington created the TBL with the purpose of changing the way capitalism works.

In the capitalist economic system that is installed worldwide, companies are motivated to grow without limit for two reasons (Schweickart, 2010). On the one hand greed may be a motivation

of growth since the increase of the returns to scale and profits would benefit business owners. On the other hand, company growth may be rooted in fear of company failure. In other words, if a company does not grow, it risks the competition outgrowing them, thus increasing their market share and bargaining power, which can lead to the collapse and downfall of the business. This type of capitalism implies many negative consequences. For instance, although modern industrialism appeared in a time when there were less people and material well-being, and more natural resources, in the current situation there are fewer resources to cover the needs of more people. However, the capitalist industry has not updated its way of working to current times, obliging companies to constantly grow, wasting resources, natural capital, and people (Hawken, 1997). Besides, it is possible to affirm that capitalism causes inequality. This may stem from two aspects: firstly, people and businesses that innovate may become wealthier thanks to the novelty of the offered goods and services, and secondly, wealthy individuals are able to buy political influence, helping them maintain and increase their wealth, leading to more inequality (Rogoff, 2012). The TBL concept was not thought of as an accounting system for companies, but as a way of restructuring capitalism to work around all three bottom lines: the ecologic, the social, and the economic one (Elkington, 2018). However, this failed to happen, and the lack of prioritization of social and environmental sustainability can be observed particularly in the fashion industry.

Annex 5 - Sustainability problems that arise from the fashion industry, extended explanation

Annex 5.1- Environmental issues

The magnitude of the environmental threat posed by the fashion industry endangers the access to natural resources of future generations, rooted in their depletion and pollution. These types of issues can be grouped in the following four groups: Carbon emissions and energy waste, water waste and pollution, the use of pesticides, and the waste and lack of recycling generated after the useful life of clothing.

The first environmental problem posed by the fashion industry is the important amount of carbon emissions and energy waste it carries. The fashion industry is considered by the UNCTAD as the second most polluting industry worldwide, and its carbon emissions are superior to all international flights and maritime shipping combined (UN News, 2019). Furthermore, 8% of the planet's greenhouse gas emissions are generated in the manufacture of clothing and footwear because most production is done in Asian countries where electricity and heat rely mainly on coal and natural gas. Thus, these trends continue, the fashion industry's greenhouse gas emissions could rise by 50% until 2030 (UN News, 2019)

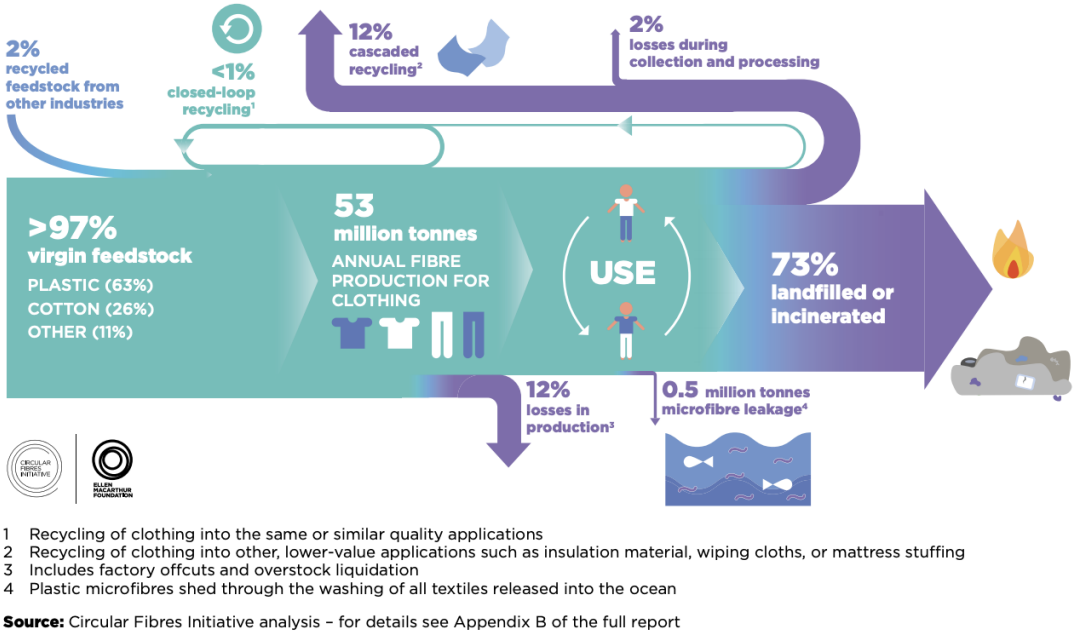
The second negative effect of the fashion industry in environmental terms is water waste and pollution. For instance, 2,000 gallons of water, equivalent to more than 10,000 liters, are needed to make one pair of jeans (UN News, 2019), and to produce 250 grams of cotton necessary to make one cotton t-shirt, 2,700 liters of water are needed, which is what one person drinks during approximately 3 years. (National Geographic, 2013). Furthermore, the fashion industry as a whole uses yearly 93 billion cubic meters, which is enough for 5 million

people to survive, and also produces 20% of global wastewater (UN News, 2019). For water pollution, on the one hand, the fashion industry causes the most plastic to enter the ocean with more than 5 million tons of plastic microfibers released annually, mostly coming from washing plastic-based materials. On the other hand, dyes and textile treatment also pollute 20% water globally (Ellen MacArthur Foundation, 2017).

The third notable issue caused by the fashion industry is the use of pesticides in the production of cotton. Although only 2.4% of the world's cultivable land grows cotton, this crop accounts for 24% and 11% of the insecticides and pesticides global markets respectively (WWF, 2013). The use of pesticides leads to three main problems. Firstly, the pesticides and chemicals used in the cultivation of cotton changes soil composition and hampers the balance in which the microorganisms of the soil live, which leads to the growth of harmful bacteria (WWF, n.d. a). This leads to the second problem, which is the pollution of rivers, lakes, wetlands and underground aquifers, and the direct threat to biodiversity, because of the pesticides and fertilizers used. Finally, the use of fertilizers can harm the health of farm workers and close populations (WWF, n.d. b).

In fourth place, the waste generated after the useful life of clothing and the lack of fashion recycling is a recurring problem in the fashion industry. In the last 15 years, the number of uses of each garment has decreased by 36%. For instance, in the US, clothes are worn for a quarter of the global average, and in China, the lifespan of clothes has decreased by 70% in 15 years. (Ellen MacArthur Foundation, 2017). This is environmentally detrimental: every second, a number of textiles corresponding to one garbage truck is landfilled or burned (UN News, 2019). This does not only mean a waste of the resources used for the production of the garments, it also implies pollution through the emission of greenhouse gases and dangerous chemicals in the process of incineration or landfill (Greenpeace, 2016). We must note that the useful life of clothes has an inverse relationship with their emissions. On the one hand, the increase of the useful life of garments from one year up to two years decreases by 24% the year's emissions. On the other hand, the reduction of a t-shirt's life from one year, the equivalent of 50 uses, to one month, just 4 uses, increases the year's emissions by 550% (Carbon Trust, 2011). An important amount of waste could be reduced if the materials and parts of the clothing items were recycled, and reintroduced in the production system to create new clothing, but as observable in Figure A5.1.1, and the explanations below this is yet not the case.

Figure A5.1.1: Global Material Flows for Clothing in 2015



Source: Ellen MacArthur Foundation, 2017

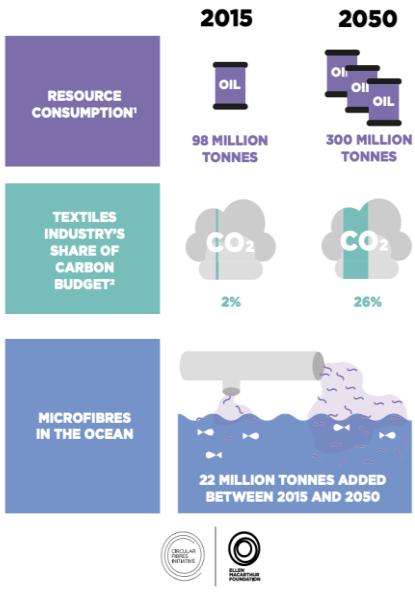
The flow of materials in the clothing industry can be explained as the following: Firstly, 97% of the materials are virgin feedstock from which 63% is plastic, 26% is cotton and the remaining 11% are other materials. Just 2% of materials introduced in the industry are recycled feedstock from other industries, and only 1% come from the fashion industry. Then, the annual fiber production for clothing is approximately 53 million tons, from which 12% is lost in production. Furthermore, during the use and washing of the clothes, 0.5 million tons of microfiber are released into the ocean. Finally, after the useful life of the clothes comes to an end, 73% of materials are landfilled or incinerated, 2% are lost during collection and processing, 12% cascade onto other industries for the production of articles such as insulation materials, wiping cloths, and mattress stuffing, and the remaining 1% goes back to the fashion industry to be recycled, which highlights the lack of closed-loop recycling within the fashion industry (Ellen MacArthur Foundation, 2017).

In conclusion, it is key to notice that all these aspects are all interlinked: the linearity of the fashion industry has a negative impact on all four issues mentioned above. The use of nonrenewable resources to produce clothes with a short lifespan, and which are usually not recycled and end up landfilled or incinerated drains resources, pollutes and deteriorates the natural environment.

Moreover, fast fashion is the root of the environmental damage caused by the fashion industry, and the continuity of strategies rooted in it such as the growth of production and consumption, the short lifespan of clothing items, and the lack of recycling of the materials after their life is over there could be disastrous consequences in the long term. Furthermore, the growth of emerging markets, mostly in Asia and Africa, could lead to an increase of demand for clothing items, multiplying sales by three by 2025, reaching 160 million tones. This increase in production would lead to devastating environmental effects, which are illustrated in Figure

A5.1.2. Firstly, the fashion industry would use more than 26% of the carbon under the carbon budget of 2ºC by 2050. This means that in order to increase global warming only by the recommended 2ºC, the fashion industry would be emitting 26% of the permitted CO2, an important increase from the 2% of the carbon emitted by the industry in 2015. Secondly, if the current growth of production continues, by 2050 the non-renewable inputs like oil used in the fashion industry will amount 300 million tons. Thirdly, between 2015 and 2050, 22 million tons of plastic microfibers would enter the ocean (Ellen MacArthur Foundation, 2017).

Figure A5.1.2: The negative impacts of the textiles industry are set to drastically increase by 2050



Source: Ellen MacArthur Foundation, 2017

Annex 5.2- Social Issues

The fashion industry, is the source of several social problems such as gender inequality and Gender Based Violence (GBV), dangerous working environments, bad schedule and salary conditions for subcontracted workers, child labor, and poor environmental practices.

Firstly, gender inequality and GBV are important social issues subsequent to the fashion industry. Approximately 80% of garment workers are women: the cultural and gender stereotypes that portray women as passive and flexible make them the ideal target workers in clothing factories. Furthermore, it is very difficult for them to find other types of jobs because of their domestic responsibilities, such as cleaning, cooking and childcare (Labour Behind the Label, n.d. a). Systematic gender pay gaps are also present: for instance, in India, women earn 39% of the wage of a man with the same job, and in Pakistan, this percentage is 48%. In addition, the probability of receiving a pay below the minimum wage is higher for women than for men: for example, in Pakistan's clothing sector, 87% of women's salaries are below the

minimum wage, compared to 27% of men being paid below minimum (Global Fashion Agenda, 2017). The case of Bangladesh illustrates how demanding the labor conditions are for women. A 2001 report stated that there were 1.6 million apparel workers in Bangladesh, 85% of them being young women, aged between 16 and 25. These women were working in extreme conditions, doing 12 to 14-hour shifts, seven days a week, and earning wages under the national minimum wage, which is between 13 and 18 cents per hour (Taplin, 2014). However, it was difficult for these women to quit this kind of employment since it offered them status and autonomy, and a better position within the family (Taplin, 2014). So, even if they worked under extremely difficult conditions, having these jobs offered women multiple benefits, thus decreasing their will to quit them.

Salaries below the minimum wage and long working hours are not the only problems these women face on their day to day, as GBV is also present in the workplace of women in the factories. For instance, women in Bangladesh or India suffer from four types of GBV: Firstly, physical abuse, which includes violent attacks, injuries, and even murder; Secondly, Sexual violence, such as rape, sexual harassment and verbal abuse; Thirdly, psychological violence, found under the form of bullying, stalking, coercion, psychological abuse, and intimidation; And in fourth place, structural violence, including economic exploitation, or the denial of access to education (FEMNET, n.d.). In addition, motherhood is another subject of discrimination. In the recruitment phase women are asked if they are married or planning on having children. While some employers only hire unmarried women with no children, others make women sign a document agreeing not to have children during the period of employment, and some employers even make candidates get pregnancy tests (Labour Behind the Label, n.d. a). Discriminatory actions towards pregnancy may also happen if they get pregnant while working. In this situation, many try to hide the pregnancy leading to birth and childcare problems. Also, pregnant women are verbally harassed, asked to have higher production quotas, and expected work in fatiguing tasks for more hours than usual (Labour Behind the Label, n.d. a).

A second social issue is the dangerous environments in which workers have to perform on a day to day basis. The health and safety risks workers undertake are numerous: employees work in unsafe buildings which lack ventilation, making the heat inside very intense, without access to clean drinking water, with restricted access to the bathroom and using dangerous chemicals in their workplace (Labour Behind the Label, n.d. b). In addition, workers are abused and attacked, or even killed, for joining a union and demanding better working conditions. (Labour Behind the Label, n.d. b). Other essential safety hazards these workers face are the lack of security measures in the factories like emergency exits, and the practice of locking of doors and windows to avoid theft, which can cause many deaths in case of a fire in the factory. For example, the Ali Enterprises fire in Pakistan in 2012, where workers were trapped in a burning building led to the death of 254 people, and injury of 55. (Labour Behind the Label, n.d. b). The structure of the factory buildings is another issue, as factories are built cheaply in buildings that are not designed to contain heavy machinery, which leads to building collapses and the death of workers (Labour Behind the Label, n.d. b). The case of the collapse of the clothing factories called Rana Plaza in Bangladesh, where 1,127 people died, mainly young women exemplifies this issue. This case is particularly interesting because, both Spain's Mango MNG Holding SL and the retailer El Corte Inglés had clothes in the Rana Plaza factories

(Taplin, 2014). This leads to the argument that some important Spanish Fast Fashion Companies are not holding their subcontractors accountable regarding the security measures of their workers.

The third problem factory workers find is the long work-days and the very low salaries, which are sometimes even under the minimum wage. Factory workers tend to work between 10 and 14 daily hours, to which they add forced overtime, resulting in 18 hours of work a day when factories have large orders. Because they do repetitive work, they get undiagnosed injuries. However, a decrease of productivity may cost them their job (Labour Behind the Label, n.d. b). Although having long workdays, these do not allow workers to earn good salaries, which often do not cover basic aspects such as rent, food, medical expenditures, and education for children. Minimum wages are often under the national living wage because they are usually determined by governments, which want their country to compete with other countries with inexpensive human capital in order to maintain its investors (Labour Behind the Label, n.d. b). In recent years some governments have tried to raise their national minimum wage. For example, the government of Bangladesh raised the national monthly minimum wage by more than 50% in September of 2018, from 5,300 Taka (the equivalent of $63) up to 8,000 Taka ($96), the first wage increase in five years, and since the Rana Plaza incident in 2013 (Business & Human Rights Resource Centre, n.d.). Even if this increase could be considered as a positive decision, many trade unions and organizations for workers' rights deemed this increase insufficient, and stated 16,000 Taka was the minimum acceptable wage. This led to protests in January 2019, which were met with force by the authorities. After that, the government's "tripartite committee" maintained the 8000 Taka minimum wage. While some workers returned to the factories, thousands of workers continued the protests, leading to the dismissal of more than 12,000 people, an action considered by the Workers' Rights Consortium as unlawful (Business & Human Rights Resource Centre). In conclusion, even if some steps are already being taken to improve worker's conditions, there is still a long way to go to provide them with a secure workplace, and a stable decent salary.

The fourth social issue caused by the fashion industry is child labor in the clothing manufacturing countries. Child labor is defined as work done below the required minimum age, so work that the child is too young to do, or as unacceptable work for children because of its harmful nature or conditions (Moulds, 2015). Until 2016 the number of children in child labor has decreased to approximately 152 million. However, this is still 10.6% of the worldwide children population, as we can see in the Figure A9.11 (International Labour Organization, 2017). Furthermore, according to 2016 data, 107 million children, so the 70.9% of working children, belonged to the Agricultural sector, then 18 million children, 11.9% of working children were in the Industry sector, and finally, 26 million children, 17.2% of working children worked in the Services sector (International Labour Organization, 2017). Thus, child work in the fashion industry is spread worldwide and throughout the whole supply chain. Firstly, it is present in the obtaining of raw materials. In the growing of cotton, children are used to transfer pollen from one plant to another, and also to sow the cotton during spring, and weeding it in summer. This is done under long working days, being exposed to pesticides and paid below the minimum wage (Moulds, 2015). In further stages, children work in yarn and spinning mills. For instance, in some Indian mills, 60% of the workers were below 18 when they started

working there (SOMO, 2014a). In the final stages of the process, children are also present to put clothes together (Moulds, 2015), doing laborious activities such as “dyeing, sewing buttons, cutting threads, folding, moving and packing garments” (SOMO, 2014b). When working, children are exposed to all the social hazards mentioned earlier in this section: their wages are very low, even below the national minimum wages, they work very long days, and they also suffer the bad workplace environment, which can lead to health and security issues. Furthermore, young girls also suffer from gender discrimination and gender-based violence. For instance, some women working in Indonesia reported the harassment of girls in factories by male managers (Labour Behind the Label, n.d. a). Finally, child labor also jeopardizes children’s education: It either prevents them from getting an education, or, if they are enrolled in school, it allows them to learn less. There are 36 million working children between the ages of 5 and 14 years who are not in school, which is the 32% of all children in child labor (International Labour Organization, 2017). Although it is true that the remaining 68% of working children do have access to school, their conditions are not ideal as the time and effort required by work does not allow children to profit from their time in the classroom, or to have time outside school for independent study. Thus, this results in children having a poor performance in school compared to their schoolmates who do not work (International Labour Organization, 2017).

The fifth and final social issue is that, although workers in the main clothing manufacturing countries benefit from the employment in the fashion industry, they are also affected by the pollution of their home territories (Ellen MacArthur foundation, 2017). Thus, the citizens of countries where most clothing is produced are negatively affected by all environmental issues that have been mentioned in the previous section of this paper.

As production and consumption are concentrated in different countries, this creates a flow of emissions between producer and consumer territories in the global clothing sectors. Furthermore, as it is shown in Figure A5.2.1, all of the emission flows except from one (Europe-North America) have their beginning in developing regions, and the three most important emission flows go from a developing region, which produces the clothing articles, to a developed one, which consumes said clothing articles: China-Europe, China-Japan and China-North America (Carbon Trust, 2011). In sum, in order to supply clothing for developed regions, developing ones assume most of the carbon pollution, which has various negative effects on the health of their populations: an increased exposure to Carbon emissions, which lead to high air pollution, are related to health issues such as lung cancer, heart diseases, strokes, chronic bronchitis, lower respiratory infections, and premature mortality (Farooq, Shahzad, Sarwar & ZaiJun, 2019)

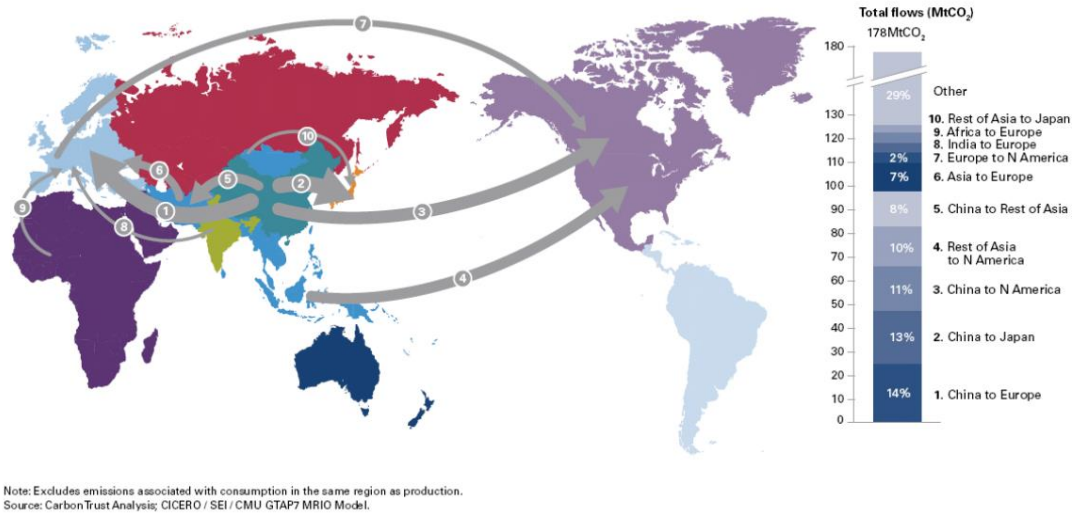
Since the fashion industry is an important water pollutant, it leads to various problems for the population depending on different water sources. For instance, the dyeing of fabrics oftentimes leads to the direct dumping of wastewater into rivers, lakes or other water sources the population’s livelihoods depend on. This happens mostly in Asian countries such as Bangladesh, with three rivers near the capital, considered “biologically dead” (Chauhan, 2020), India, with the pollution of the Kasadi River with indigo dye (Chrol, 2019), Indonesia, having the world’s most polluted river, the Citarum River, because of the dumping of wastewater

directly into the river by 500 textile factories (DW, 2020), and China, which has alone 435 discharge points for industries performing dyeing activities, spanning the coast and releasing 32.2 billion tons of wastewater into the sea each year (Greenpeace International, 2014). The pollution of water hinders the access to clean water for consumption and hygiene purposes, and even makes the growing and consuming of crops for self-sustainment impossible as these are intoxicated by the water (Greenpeace International, 2013). In addition to that, water pollution eliminates the presence of fish that could be consumed as food by the citizens of nearby regions (Owa, 2013). Besides, the consumption of polluted water can be detrimental to human health since disease-carrying agents may be carried to the surface and groundwater, affecting the quality of drinking water, and deriving health problems (Owa, 2013). Furthermore, the exposure to water polluted by wastewater from textile factories, which are oftentimes toxic, can cause health problems such as cancer (Greenpeace International, 2013). The use of pesticides in the growing of cotton is another source of water pollution. For instance, in India, cotton crops account for 37% of the national consumption of pesticides, making it the crop with maximum share of pesticide consumption in the country (Bhardwaj & Sharma, 2013). Also, the water stress that India has been living in the past decades is being aggravated, having a decrease of 15% of the water availability per capita from 2001, to 2011 (Chapagain, Mathews & Zhang, 2017). Because of the intensive use of pesticides and release of pollutants in the fields, surface and groundwater sources are polluted (Chapagain, Mathews & Zhang, 2017). The pollution of water with pesticides is extremely harmful for human health since pesticides are toxic (WWF, n.d. b), and its consumption may lead to cancers, acute illnesses or other health problems (Global Fashion Agenda, 2017). Besides harming people's health, pesticides may kill the ecosystem and therefore the fish living in those waters (WWF, n.d. b), further reducing the resources of regions nearby cotton plantations.

In conclusion, the root of social sustainability problems is again fast fashion, specifically the race to the bottom effect, defined as the situation in which a company or a region tries to have lower prices than the ones of the competition by decreasing the quality of said products, worker safety, or reducing labor costs (Chen, 2020). Countries such as Bangladesh, or Cambodia base a lot of their economic development on the export of clothing manufactures, as they are countries rich in labor and do not have much capital (Taplin, 2014). Furthermore, fast fashion retailers require a very fast production, since their business-model is based on the quick response to the newest trends at a low price, and the production of small batches remaining in the stores for a short amount of time. In order to sell clothing in these conditions, fast fashion companies incur to the race to the bottom by taking measures such as re-locating where they manufacture the pieces of clothing (Taplin, 2014). This puts even more pressure on factory workers from labor-rich countries, and worsens even more their working conditions, as working hours increase, wages are extremely low, and workplace conditions become dangerous. Besides, workers do not join trade unions because they fear that if wages increase, brands will change to another subcontracted company, and they will lose their jobs. Thus, subcontracted companies are reluctant to apply living wages, fearing to be priced out of the market (Labour Behind the Label, n.d. c). Also, the relationships between fast fashion companies and the subcontracted manufacturers or middlemen may not be transparent enough, which leads middlemen to also source elsewhere some parts of the production process. This results in the

decrease of knowledge of fashion companies on the whole value chain sourcing which is detrimental to the sustainability of fashion companies since they cannot ensure that all ecological and social standards are being followed (Taplin, 2014).

Figure A5.2.1: Major global flows of embodied emissions in clothing



Source: Carbon Trust. (2011)

Annex 5.3- Economic consequences

If all the problems that have been presented above, both from an environmental and from a social perspective, were addressed, the world economy would have a gain that amounts to €160 billion by 2030 (Global Fashion Agenda, 2017). Figure A9.12, shows how this quantity has been plotted, and its different parts will now be explained. Before detailing the factors that compose the €160 billion at stake, we must consider that by 2030, the expected global population will be 8.5 billion people, and if the Gross Domestic Product (GDP) per capita increases as expected in developed countries (yearly growth of 2%) and in developing countries (yearly growth of 4%), the 62 million tons of apparel consumption in 2015 might increase up to 102 million tons in 2030 (Global Fashion Agenda, 2017). Such growth rates are the benchmarks used for the presentation of the following conclusions.

On the one hand, environmental issues may risk a value of €110 billion. Firstly, if the water consumption of the fashion industry continues growing at the current pace, the consumption of water by 2030 would be 118 billion cubic meters, increasing by 39 billion cubic meters with respect to the water consumed by the fashion industry in 2015. Avoiding this increase, maintaining the 2015 figures of 79 billion cubic meters of water consumed, could imply a global benefit of €32 billion per year. Secondly, the fashion industry's Carbon emissions are expected to grow up to 2,791 million tons by 2030, an increase of 63% respect 2015. A change in this pattern thanks to an improvement of energy management would imply a benefit up to €67 billion by 2030. Thirdly, the use of chemicals like fertilizers, insecticides and herbicides for the cultivation of cotton, oftentimes released into waterways, pollute the population's water, causing health problems like cancer. Improving chemical management would decrease such health issues, leading to a yearly gain of €7 billion in 2030. Fourth and last, the waste creation

by the fashion industry is expected to increase by 62% from 2015 to 2030, amounting up to 148 million tons of waste by 2030. Although the fashion industry could create much value by converting waste into raw materials, this type of recycling technology does not exist for many types of fibers, and it is uncertain how economically viable it would be. The world economy would gain € 4 billion per year in 2030, solely from the reduction of waste, even with the use of linear value chains (Global Fashion Agenda, 2017).

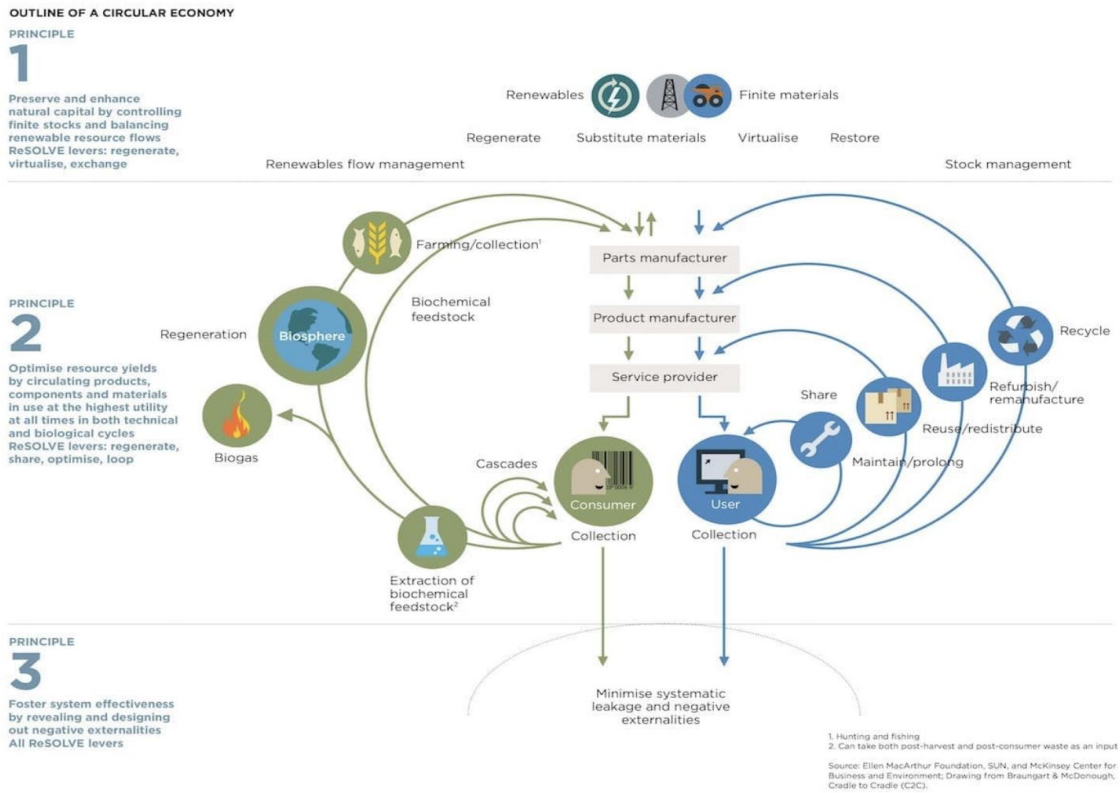
On the other hand, social burdens imperil €50 billion. Firstly, the most concerning labor practice in the fashion industry is the fact that minimum wages in garment-producing regions cannot be considered living wages. The International Labour Organization (ILO) recommends companies to act on "extreme compliance" to minimum wages, so paying 120% the legal minimum wages. Data from 2015 reveals that 14 million workers in the fashion industry were paid less than 120% of the minimum wage, and with the current growth rates of the fashion industry, it could be 21 million people by 2030. Thus, by not incrementing the number of workers paid less than 120% of the minimum wage, the global economy could have a yearly benefit of €5 billion. Secondly, health and safety in the workplace are also key issues in the fashion industry: since in 2015, there were 1.4 million injuries, and it could increase by 7%, up to 1.6 million injuries, in 2030. Although there is a low potential increase until 2030, due to the fact that the fashion industry already aims at securing the work environments, if all workplace injuries were prevented, there could be a worldwide gain of €32 billion per year by 2030. Thirdly, the expenditure the fashion industry destins for community and external engagement is approximately 0.2% of sales, spent on the community and other Corporate Social Responsibility tasks, much less than what the UN Millenium Development Goals expects from governments in wealthy countries, which should spend 0.7% of their GNP to assist developing countries. If fashion companies increased their community spending up to this 0.7%, there could be a global annual gain of €14 billion in 2030 (Global Fashion Agenda, 2017).

In addition to the environmental and social dimensions, a third dimension might be contemplated: the ethical one. Although this one cannot be quantified, ethical issues such as animal welfare, loss of biodiversity, corruption and negative imagery within others, are also important for the fashion industry to keep in mind in the future.

After checking the money at stake worldwide, it is important to look at how the maintenance of the status quo of fashion companies regarding sustainability may decrease their profitability in the future. As we can see in Figure A9.13, which represents a Profits and Losses (P&L) statement for a fashion company, companies are expected to have a decline in Earnings Before Interests and Taxes (EBIT) margins of more than 3% if they continue with the same sustainability practices they have now. This is due to the possible increase of the retail value by 2% annually, and that the cost of labor is projected to grow yearly between 4 and 5%. Furthermore, cotton prices are expected to have an annual growth of 1%, which could be increased due to future water scarcity. For energy, which accounts usually from 6 to 10% of production and material costs, prices are also forecasted to increase yearly between 2.3% and 3.5%. Furthermore, a decrease of the EBIT of 3% for all fashion companies would imply a loss of yearly profit of €45 billion in the whole fashion industry (Global Fashion Agenda, 2017). In order to prevent the increase of costs, and to become more sustainable, fashion companies

can invest in being more efficient in terms of water, energy and waste efficiency, and labor productivity (Global Fashion Agenda, 2017).

Annex 6: Circular Economy "Butterfly Diagram"



Source: Ellen MacArthur Foundation (n.d. b)

This illustration does a much more analytical depiction of the concept of circular economy and allows the observation step by step of how the Circular Economy can be applied. It starts from the raw materials and energetic resources, then proceeds through the manufacture until arriving to consumers or users, and finally it indicates how the different elements of the product go back into the manufacturing process. It is essential to clarify that in the "butterfly diagram", there are two types of materials, which have different cycles within the circular economy. On the one hand, biological materials, in green, on the left side of the diagram, can be safely reintroduced into nature after their use cycles, as they will biodegrade and become nutritious for the environment. Since people consume these products, they are known as consumers. On the other hand, technical materials, in blue on the right side of the diagram, are for example metals, plastics and synthetic chemicals, so they cannot be reintroduced into nature, and must be continuously put through the circular system to recapture their value as many times as possible. Moreover, they cannot be consumed, they can only be used as they should not return to nature at the end of their life-cycle, so people are users of technical materials (Ellen MacArthur Foundation, n.d. b).

Annex 7- Benefits and opportunities of the circular economy

The application of the circular economy is not in vain, it can potentially produce benefits not only from a macroeconomic and business perspective, but also from the environmental dimension.

Firstly, from a macroeconomic point of view, the increase of activity and revenues caused by the reduction of production and raw material costs thanks to circular economy and the efficient employment of inputs would lead to an increase of GDP. Also, circular economy could lead to the creation of jobs requiring higher expertise in remanufacturing and innovation, and services. Furthermore, circularity would lead to innovation, thus developing new technologies, better materials, labor, energy efficiency, and profit opportunities for companies (Ellen MacArthur Foundation, n.d. b). Secondly, from an environmental perspective, a circular economy would lead to an estimated decrease of Carbon emissions in Europe by 50% until 2030. Also, it could lead to the decrease by 32% of the consumption of primary materials, such as water, fuels, non-renewable electricity… etc. Besides, since the circular economy would increase the productivity of land, decrease waste of food, and return the nutrients to the earth, there would be an increase in land productivity and in soil health (Ellen MacArthur Foundation, n.d. b). Thirdly, a circular system could also lead to several benefits for companies and businesses since it would reduce costs thanks to only remanufacturing goods instead of making them from scratch, and would also reduce the risk of depending on volatile raw material prices. Finally, the new ways of interacting with customers could increase their loyalty (Ellen MacArthur Foundation, n.d. b).

Keeping all these advantages in mind will be useful for the further Triple Layer Business Model Canvas of Kiabi, and most importantly for Percentil.

Annex 8- Types of circular fashion business models, extended explanation

Annex 8.1- Business models selling clothes made from recycled materials

In this case, companies consider the recycling of materials that are not biodegradable, such as plastics, from the design of the garments. The Spanish company, Ecoalf follows this model as it uses recycled polyester from plastic containers such as plastic bottles, from plastics in the ocean, and from clothing which has ended its lifecycle as the raw materials of their products. In fact, this company has recycled more than 200 million plastic bottles during its existence, allowing a reduction of Carbon emissions by 60%, of Water waste by 20%, and of energy by 50% (Ecoalf, n.d.). Ecoalf also produces and distributes its products, providing higher traceability of the value chain. The Swedish retail company H&M, has also started to apply this to some of their collections: in its “Conscious” line, garments are made of at least 50% recycled polyester or organic cotton. However, H&M’s business model does not wholly revolve around the sale of products from recycled materials, since they are fast fashion retailers (Caro & Martínez-de-Albéniz, 2015). Thus, we cannot say this company uses a circular economy business model, it just uses parts of it to improve its brand image.

Annex 8.2- Business models that recover materials from fashion items to use them as new inputs

This business model is focused on the recovery of materials from already existing garments that have come to the end of their useful life, reducing the waste of clothing that would otherwise end up incinerated or in landfills, and creating sustainable materials. An example of this is Hilados Olotenses SA, in Spain, a company that recycles municipal textiles that would otherwise not be reutilized to create many kinds of threads. The creation of recycled thread, so new raw materials, also reduces the waste generated throughout the production process. (Fundación ICO, 2020). An example from a bigger company would be the Japanese company Uniqlo, which recycles the feathers from down products donated by customers in order to create its down jackets. Furthermore, this company also recycles donated clothes to make fuel, and materials such as automobile soundproofing materials (Uniqlo, n.d.). This is yet another example of a fast fashion retail company that applies some aspects of the circular economy, but its whole business model and products are not designed from a circular point of view.

Annex 8.3- Clothing care business models

These types of companies focus on the elongation of the product's useful life through their reparation and redesign, and their goal is to maintain clothes with its maximum perceived, and actual value for the longest time possible. This business model can exist on its own, or it can even be incorporated in the business model of fashion retailers, which may repair the articles and provide other services such as garment restyling or consulting in-store, or partner local repair providers (Ellen MacArthur Foundation, n.d. c). Many outdoors clothing companies promote the good maintenance of products, and offer repair services, such as Patagonia, which offers high-quality and durable outdoors apparel. In North America, if the products need fixing, they offer in-store, and they also have the largest garment repair facility of the country. Furthermore, customers can also return to Patagonia the items that cannot be fixed in order to recycle them, and the company also offered over 40 repair guides so that customers can repair their own clothes themselves if necessary, thus promoting the extension of the life of the products (Ellen MacArthur Foundation, n.d. c).

Annex 8.4- Business Models for the rental of clothes

The fashion rental business models question the concept of ownership, providing an innovative way of fashion consumption, and taking the form of short-term rental models, or subscription rental models. This business model contributes to the circular economy system by giving customers access to a wide range of fashion items, but also decreasing the demand of newly-produced garments (Ellen MacArthur Foundation, n.d. c). An analysis demonstrated the financial viability of rental and subscription-rental fashion business models. We can see in Figure A8, that mid-market, premium and luxury fashion companies, could obtain positive margins by introducing subscription rental business models, and luxury fashion companies would obtain, a positive margin above the baseline. Furthermore, it is possible to conclude that the rental either by unit or by a subscription method offers many opportunities, especially for luxury clothing (Fashion For Good, 2019). Rent the Runway (US) and Ecoadicta (Spain) are

examples of these business models. Rent the Runway allows customers to rent different fashion items in one-time rentals, but also offers various subscription options. The devolution of the clothing items is done when the client chooses to do so, purchasing the item is also an option (Rent the Runway, n.d.). Ecoadicta could be defined as the Spanish version of the former company, offering a monthly subscription that allows to rent fashion items, and changing them every 30 days (Fundación ICO, 2020).

Annex 8.5- Resale of clothing business models

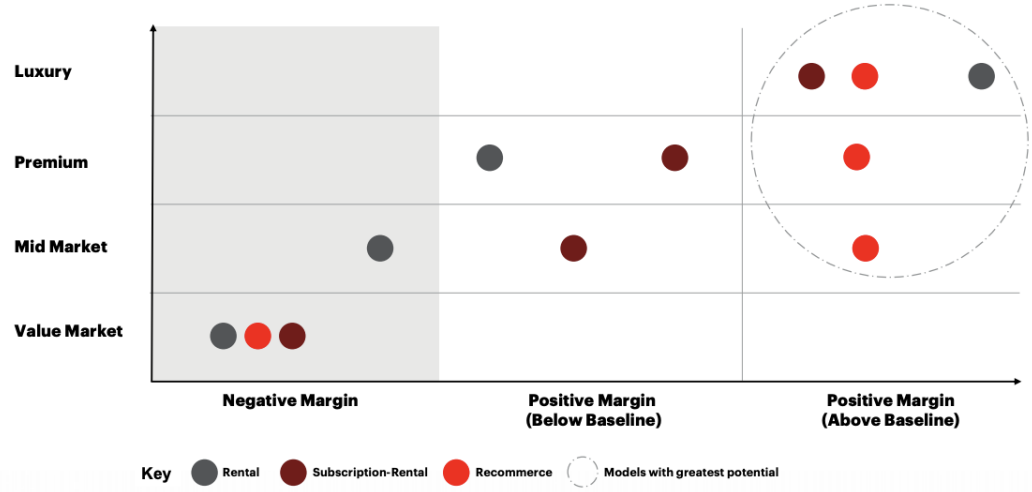
If the quality and durability of clothing becomes higher, resale business models would be fundamental to extend the useful life of garments (Ellen MacArthur Foundation, n.d. c). The resale of fashion can avoid the waste of clothing and provide customers with a wide range of fashion offers. Although businesses based on traditional thrift and donation, which already sold second-hand garments, have existed for a long time, resale is gaining more importance in the fashion industry, mostly as e-commerce. Furthermore, in 2019, resale grew 25 times faster than the retail sector, and its forecasted market growth between 2019 and 2024 is of 414%, much higher than traditional thrift and donation, with 34% of expected growth, and retail clothing, with a projected decrease by 4% (ThredUp, 2020). Besides, as observable in Figure A8, the introduction of the resale business model for mid-market, premium and luxury clothing is financially viable in all three cases, offering a positive margin above the baseline in all of them (Fashion For Good, 2019). It is possible to identify two resale e-commerce business model types with a slight difference. On the one hand, the business model of Poshmark (US) and Vinted (Lithuania), act as a network that puts the seller and the buyer in contact, enabling the sale and purchase of second-hand clothing (Poshmark, n.d.; Vinted, n.d. a). On the other hand, the business model of ThredUp (US), and Percentil (Spain), turns the company into an intermediary between sellers and buyers. In both Thredup and Percentil, the company checks the quality of the garments that are sent to them. After that, they post the articles that pass the quality test on their on-line shop, and pay a percentage to the previous owner of the clothes.

Annex 8.6- Swapping of clothes business models

The informal swapping of clothes within friend groups, families and neighborhoods has existed for decades, but this could be transformed into a sustainable business model that would elongate the useful life of clothes, and reduce the waste generated throughout the production and the waste management (Rathinamoorthy, Surjit & Karthik, 2019). Furthermore it would make fashion accessible to all as it does not require important sums of money to acquire clothes (Swap Society, n.d.). There are many options to introduce swapping into a business model. For instance, there are several online services such as Swap Society, where users can send their clothes, which are evaluated in order to give points to the user, allowing them to get clothes of equal value than the ones they have donated (Swap Society, n.d.). Vinted also allows its users to swap clothes through their app with a system that charges an amount of money agreed by both parties when the swap is officialized: the “swapsurance”, and if all parties are satisfied with the exchanged items, this money is returned (Vinted, n.d. b). Besides, there are other business model options such as the organization of swapping events. This is what the activity of the British company Loanhood consists of: Clients are expected to bring a number of items in order to fill the clothing racks of the event, and may be given tokens for

each garment, which will allow them to acquire fashion articles in the swap event, provided by other customers (BBC, 2020). In some cases, in order to enter the swap, customers must buy a ticket.

Figure A8: Financial viability of circular business models based on analysis



Source: Fashion For Good, 2019

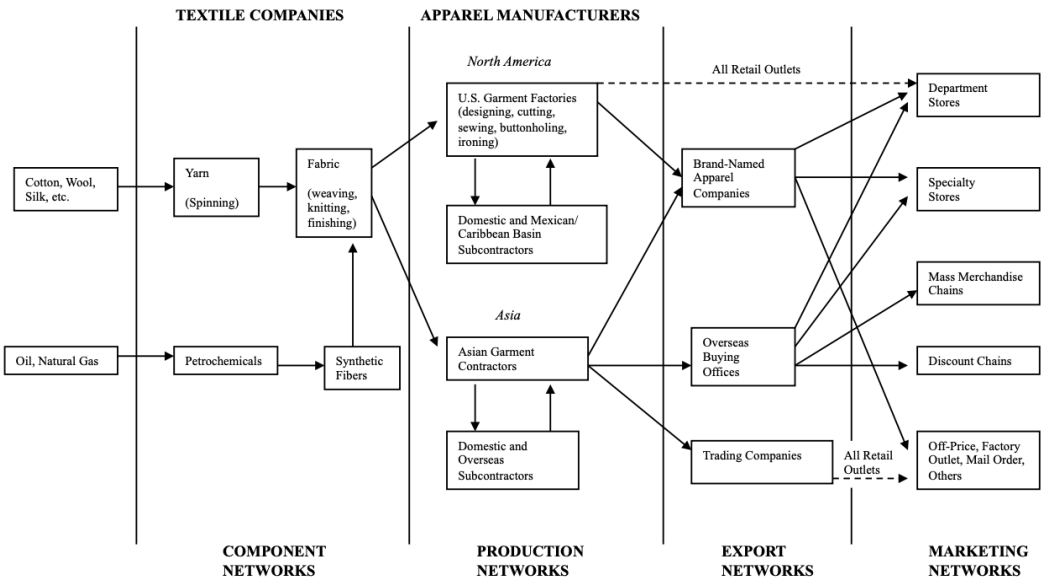
Annex 9: Figures from the Theoretical Framework

Figure A9.1: Specifying the Value Chain

The Value Chain	Primary Activities	Product Design	Designing the functions, features, and aesthetics of the product or process.
		Operations	Converting inputs into a finished product in terms of sourcing components, arranging supply chains, configuring plant location, and optimizing manufacturing processes.
		Outbound Logistics	Moving finished product from operations to wholesalers, retailers, or end-consumers. Deals with distribution channels, inventory management, warehousing, and transportation logistics.
		Marketing	Informing buyers and consumers about products and services, developing a sales force, devising packaging schemes, defining the brand, and devising promotions.
		Service	Servicing customers with installation support, after-sales service, and training.
	Support Activities	Materials and Equipment	Managing the procurement, transportation, storage, and distribution of materials and equipment necessary to conduct the primary activities.
		Human Resource Management	Recruiting, developing, motivating, and rewarding the workforce.
		Systems and Solutions	Managing information processing, overseeing information systems, and integrating technologies platforms.
		Infrastructure	Classic overhead functions, like accounting, finance, legal, safety and security, and quality control, which all firms perform.

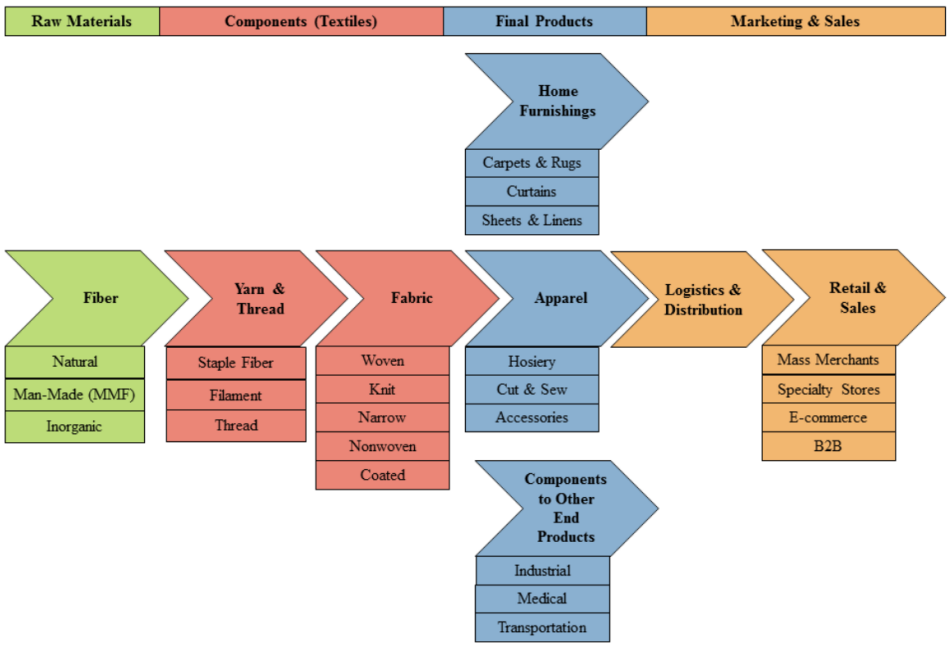
Source: Daniels, Radebaugh, & Sullivan, 2014

Figure A9.2: The Apparel Global Value Chain



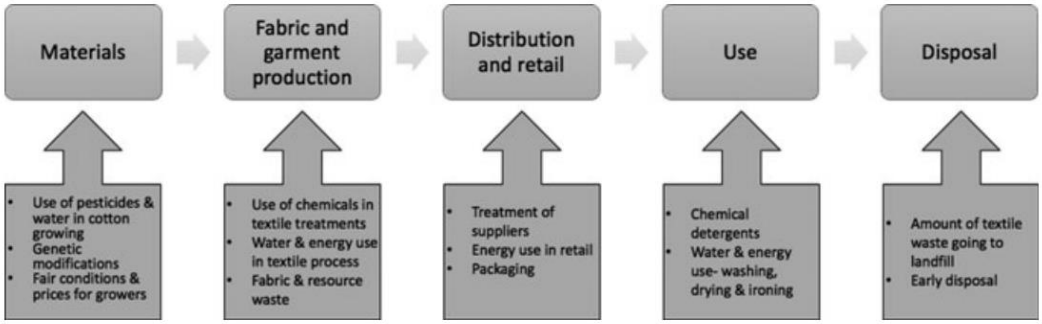
Source: Gereffi & Memedovic, 2003

Figure A9.3: Textile-Apparel Value Chain



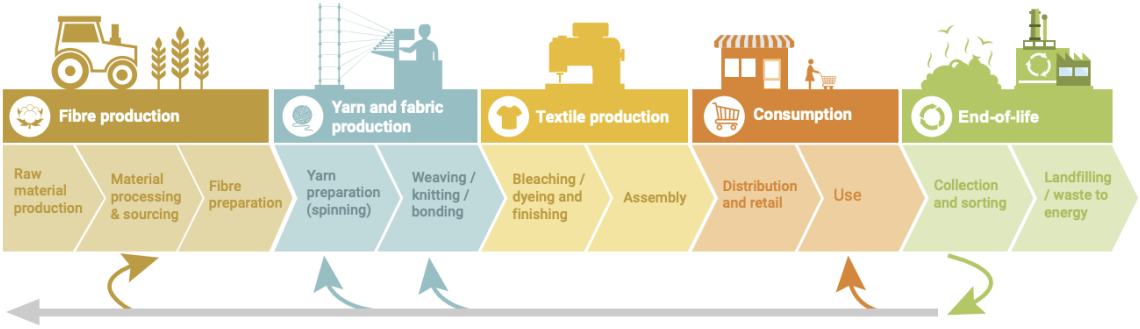
Source: Bair, Frederick, & Gereffi, 2016

Figure A9.4: Fashion Value Chain



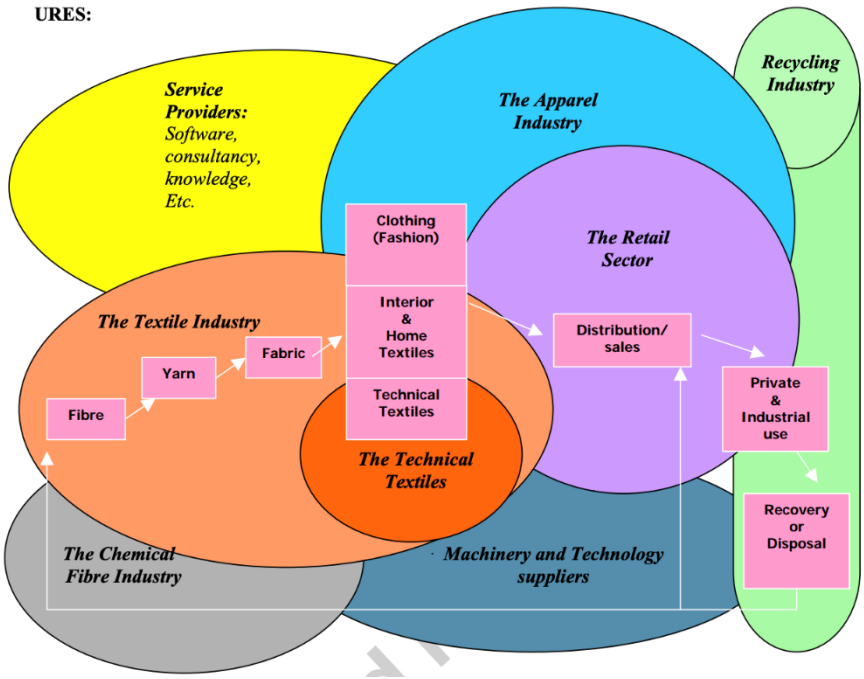
Source: Strähle & Müller, 2017

Figure A9.5: Linear representation of activities along the textile value chain



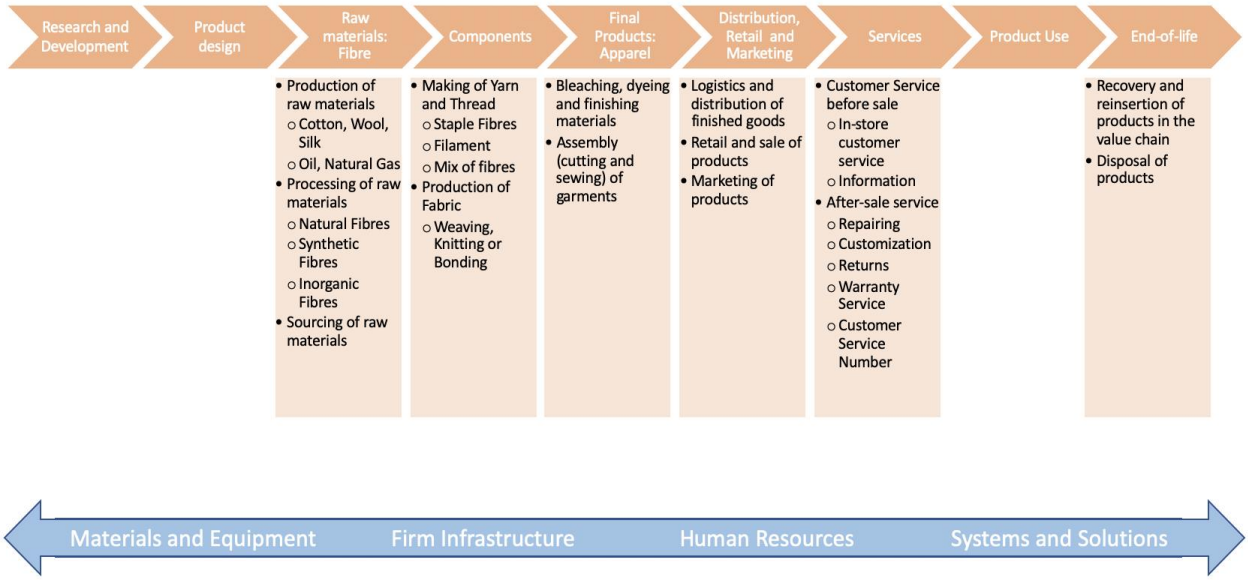
Source: UN Environment Program, 2020

Figure A9.6: The fashion supply chain: a stakeholder map



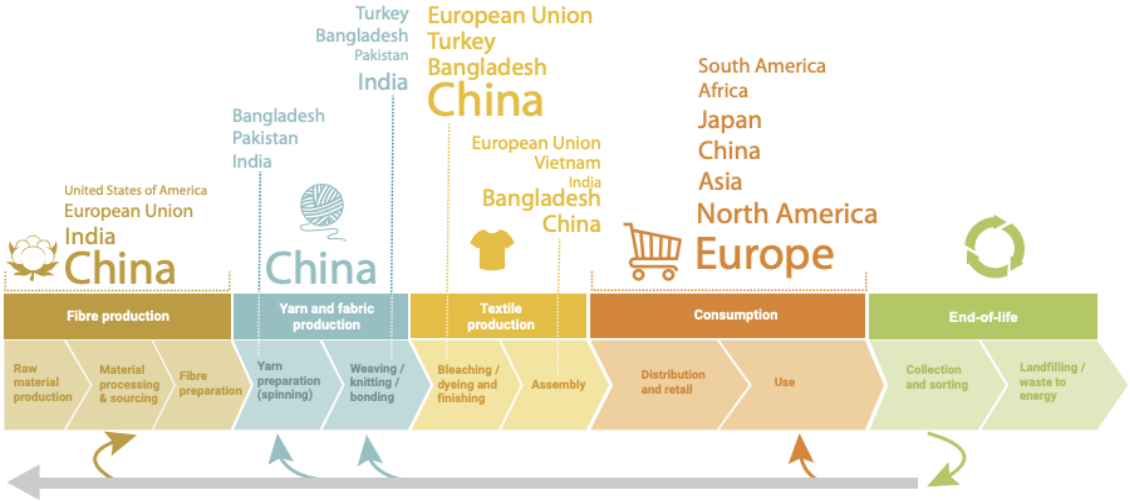
Source: De Brito, Carbone, & Blanquart, 2008

Figure A9.7: Global Value Chain of the Fashion Industry



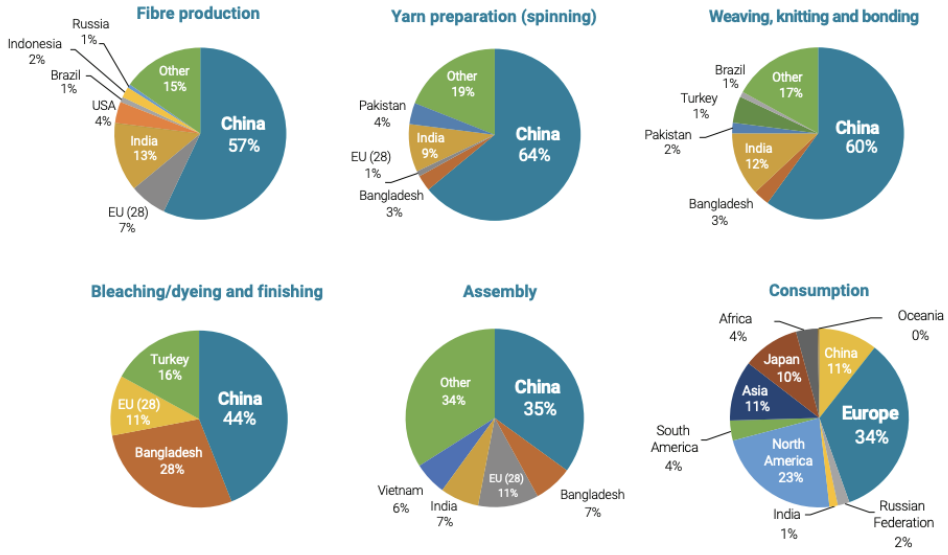
Own Elaboration (in orange: primary activities, and in blue: secondary activities)

Figure A9.8: Geographical breakdown of global apparel production and consumption



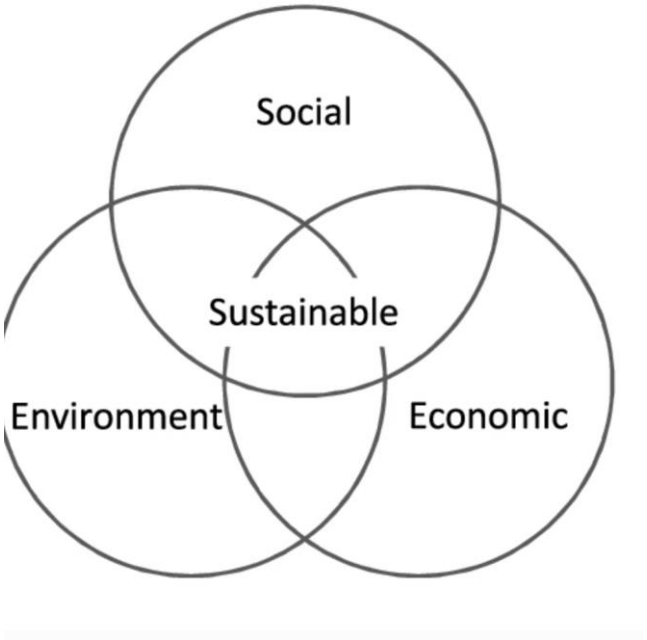
Source: UN Environment Program, 2020

Figure A9.9: Percentage of countries doing each activities of the fashion value chain



Source: UN Environment Program, 2020

Figure A9.10: Typical representation of sustainability as three intersecting circles



Source: Purvis, Mao, & Robinson, 2019

Figure A9.11: Global estimates results at a glance of Children in employment, Children in child labour, and Children in hazardous work.

			Children in employment		*Of which:* Children in child labour		*Of which:* Children in hazardous work	
			2012	2016	2012	2016	2012	2016
World (5–17 years)		Number (000s)	264 427	**218 019**	167 956	**151 622**	85 344	**72 525**
		Prevalence (%)	16.7	**13.8**	10.6	**9.6**	5.4	**4.6**
Age range	5–14 years	Number (000s)	144 066	**130 364**	120 453	**114 472**	37 841	**35 376**
		Prevalence (%)	11.8	**10.6**	9.9	**9.3**	3.1	**2.9**
	15–17 years	Number (000s)	120 362	**87 655**	47 503	**37 149**	47 503	**37 149**
		Prevalence (%)	33.0	**24.9**	13.0	**10.5**	13.0	**10.5**
Sex (5–17 years)	Male	Number (000s)	148 327	**123 190**	99 766	**87 521**	55 048	**44 774**
		Prevalence (%)	18.1	**15.0**	12.2	**10.7**	6.7	**5.5**
	Female	Number (000s)	116 100	**94 829**	68 190	**64 100**	30 296	**27 751**
		Prevalence (%)	15.2	**12.4**	8.9	**8.4**	4.0	**3.6**
Region (5–17 years)	Africa	Number (000s)	--	**99 417**	--	**72 113**	--	**31 538**
		Prevalence (%)	--	**27.1**	--	**19.6**	--	**8.6**
	Americas	Number (000s)	--	**17 725**	--	**10 735**	--	**6 553**
		Prevalence (%)	--	**8.8**	--	**5.3**	--	**3.2**
	Asia and the Pacific	Number (000s)	129 358	**90 236**	77 723	**62 077**	33 860	**28 469**
		Prevalence (%)	15.5	**10.7**	9.3	**7.4**	4.1	**3.4**
	Europe and Central Asia	Number (000s)	--	**8 773**	--	**5 534**	--	**5 349**
		Prevalence (%)	--	**6.5**	--	**4.1**	--	**4.0**
	Arab States	Number (000s)	--	**1 868**	--	**1 162**	--	**616**
		Prevalence (%)	--	**4.6**	--	**2.9**	--	**1.5**

Source: International Labour Organization, 2017

Figure A9.12: calculation of $160 billion/year lost by the fashion industry

	Impact		Value at stake	Until 2030
Environmental	Water consumption	1	Reduced water consumption	€32 billion
	Energy emissions	2	Reduced energy emissions	€67 billion
	Chemical usage	3	Reduced occupational illnesses	€7 billion
	Waste creation	4	Reduced amount of waste	€4 billion
Social	Labor practices	5	Workers earning 120% min. wage[1]	€5 billion
	Health & safety	6	Reduced number of recorded injuries	€32 billion
	Community & ext. eng.	7	Increased community spending	€14 billion
Ethical	Ethical practices	8	*Not to be quantified*	
				~€160 billion/year

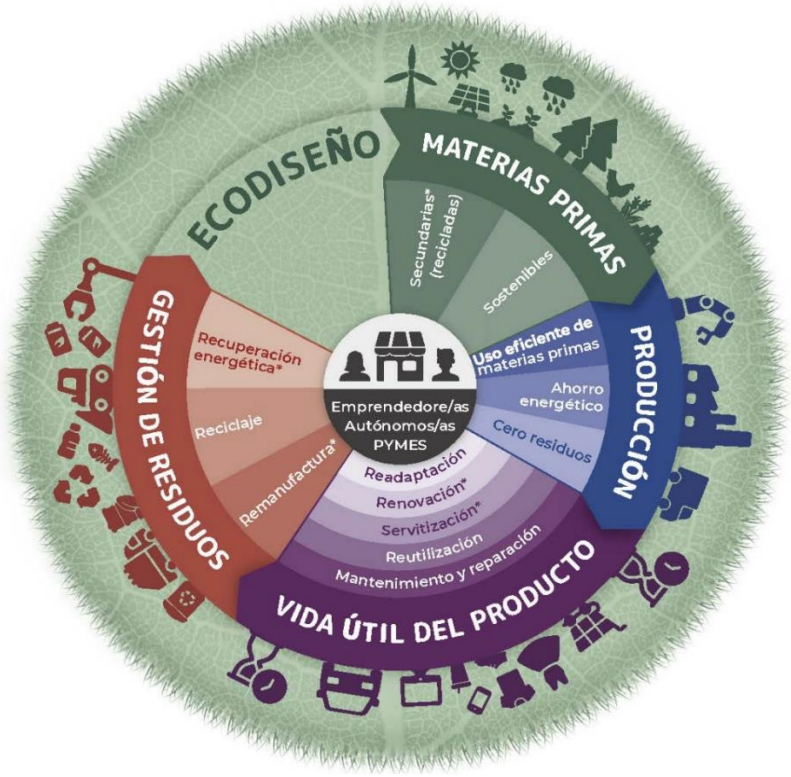
1. The authors of this report do not recommend 120% min. wage as representative of a living wage; level of 120% min. wage taken to show general insufficiency of min. wage level to make a living; further the taken threshold is advantageous due to data availability in ILO reports on min. wage compliance

Source: Global Fashion Agenda, 2017

Figure A9.13 : Exemplary P&L of a Fashion Brand. Continuing business as usual will place 3 Percentage Points EBIT at risk

Source: Global Fashion Agenda, 2017

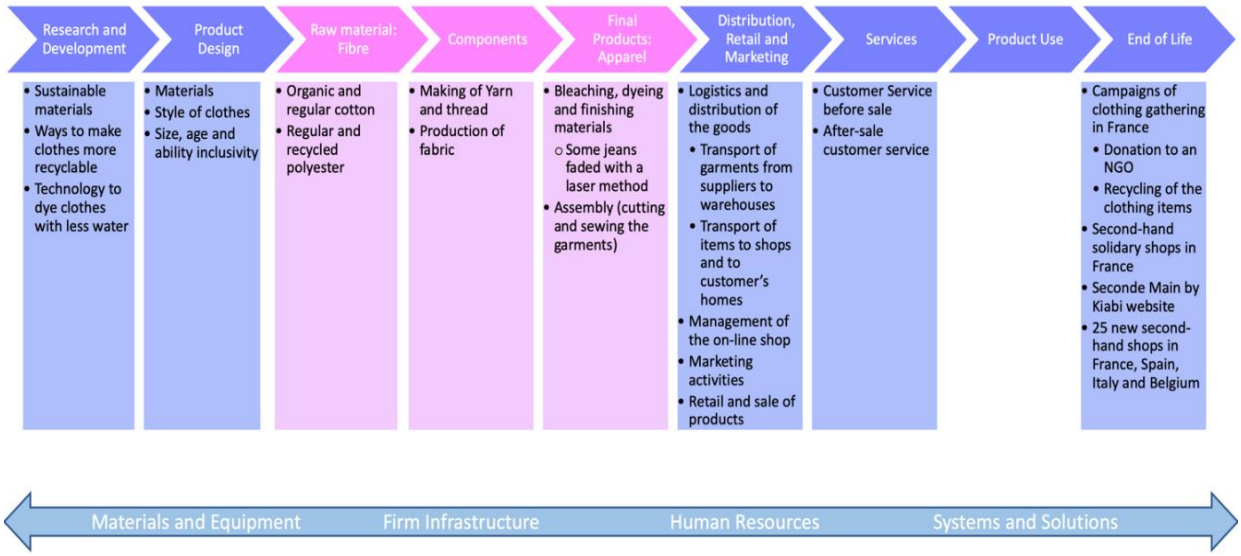
Figure A9.14: La Economía Circular (in Spanish: The circular economy)



Source: Fundación ICO, 2020

Annex 10- Value chains for Kiabi and Percentil

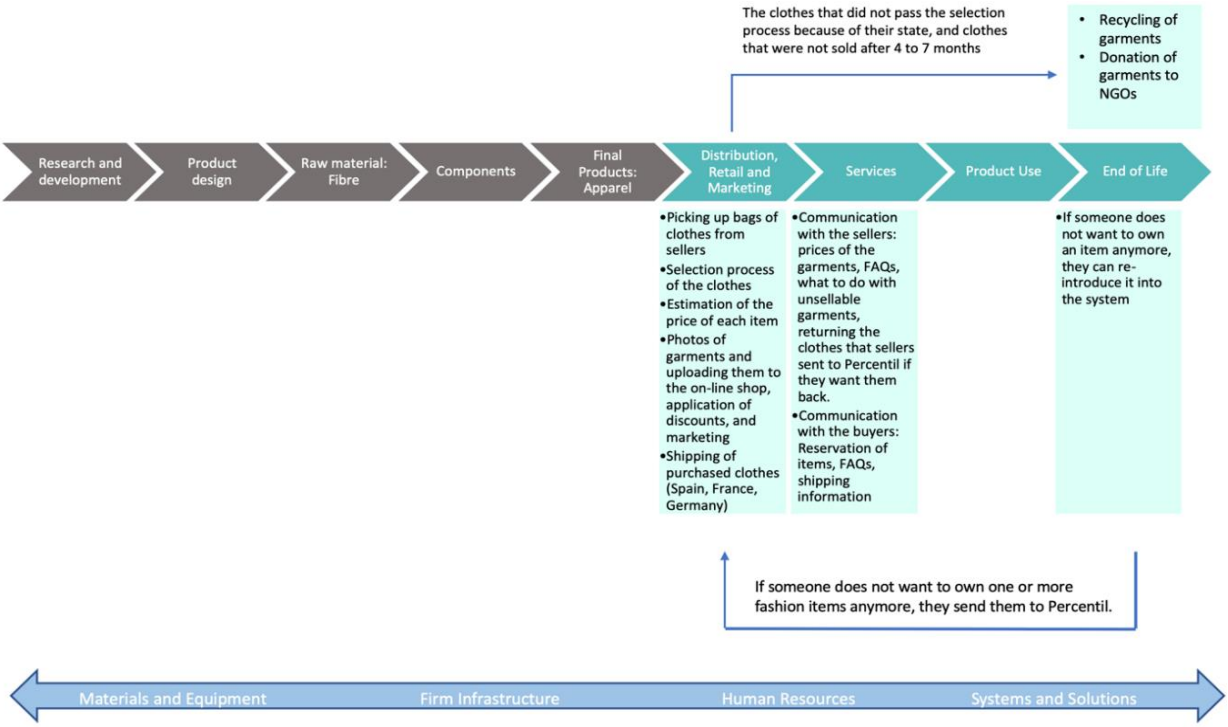
Figure A10.1: Value Chain of Kiabi



Source: Own Elaboration from KIABI, 2020

The activities in pink are the ones Kiabi sources in other countries, where it has its suppliers, and the activities in purple are the ones the company does in-house. Secondary activities are represented by the light blue arrow in the graph.

Figure A10.2: Value Chain of Percentil



Source: Own elaboration based on information from Annexes 12a and 12b

The activities performed by Percentil are in green. The activities in grey are the other ones that exist in the fashion industry's value chain, but that Percentil does not perform because the company's goods are second-hand. Secondary activities are represented by the light blue arrow in the graph.

Annex 11: PESTEL Analysis of Kiabi and Percentil

Annex 11.1 Kiabi

a) Political factors

European Trade Agreements and Tax Benefits:

Kiabi Europe is a company operated from France (AMADEUS, 2020), being a company in the European Union. This poses an important advantage for Kiabi because, thanks to being operated in the EU, it benefits from the different trade agreements and reduced taxing. This is not only beneficial for trading in other EU member states, and eases the presence of Kiabi outside of the EU under the form of subsidiaries or franchises, but it also enables Kiabi to source a part of its value chain outside of the EU (Europe Immigration Service, 2020; European Commission, n.d.). Thanks to this, Kiabi has 508 shops in 19 countries, and providers located in 12 different countries besides European ones (KIABI, 2020).

Political Stability

The political stability of the countries in which Kiabi acts is essential to prevent excessive risks. The Political Stability Index will be used to check it in countries where Kiabi either has subsidiaries, franchises or providers. A value of 2.5 implies a strong Political Stability, a value of -2.5 implies a weak political stability and the mean value of this Index is -0.05, which is useful to use as a reference. This index, formed by other indexes from the Economist Intelligence Unit, the World Economic Forum, and the Political Risk Services studies the likelihood of a country's government to be destabilized or overthrown violently by unconstitutional ways, such as political violence and terrorism (Theglobaleconomy.com, 2019).

As the data gathered in Figure A11.1.1 indicates, Kiabi's shops are present in a wide array of countries: Portugal being the most politically stable country with a PSI of 1.13, and Algeria being the least politically stable country with a PSI of -1. Ten of these countries presented a PSI below the mean of -0.05, and some of them presented quite low rates of political stability. The other nine countries had positive PSI, and a portion of them had outstanding political stability. Only 57 of Kiabi's shops (11.22% of shops) are located in countries below the PSI mean, compared to 442 (87% of shops) in countries with a PSI above the mean. From the point of view of supplier's countries, see Figure A11.1.2, ten out of the twelve regions where the suppliers are located have a PSI under the mean, some of them having high political instability. Chinese suppliers (43% of the total), Bangladeshi suppliers (17% of the total), and Indian suppliers (11% of the total), are the most important ones outside of Europe for Kiabi but their PSI is below the mean, Bangladesh being the most politically unstable. However, it is possible to consider European suppliers, 16% of the total suppliers, politically stable since the mean of Europe's PSI is 0.59. We can conclude that Kiabi is taking risks by sourcing its production mostly in politically unstable countries, since only suppliers from Europe could be considered to be in a politically stable region.

Covid-19

The Covid-19 virus has led to a worldwide health, economical and even political crisis. The different lockdowns, restrictions and even border closures that countries have been taking in order to mitigate the spread of the virus have led to the disruption of the value chains of fashion companies like Kiabi (McKinsey & Company, 2020). This may have affected Kiabi by hindering its relations with its suppliers, making more difficult the production of new garments, and the logistical operations in order to make them arrive to the different shops the company has worldwide. In addition, the different lockdowns and restrictions have led to the temporary closing of stores, possibly diminishing the in-store sales.

b) Economic factors

Currencies

Since Kiabi is an international retail company that sells its products in many different countries and has suppliers from all around the world, it must deal with the different currencies and the possible exchange rate risk. Thus, it is interesting to study the different currencies and their

exchange rates respect to the Euro as Kiabi is in the EU. As Figure A11.1.3 shows, most of Kiabi's shops are located in the EU, so Kiabi uses the Euro in those countries, and there is no exchange rate risk in that case. However, other shops are located in countries with different currencies. The appreciation of the Euro with respect to any of these currencies would be detrimental for Kiabi: when Kiabi would want to convert these currencies to Euros, in order to obtain 1€, more units of the foreign currency would be required, leading Kiabi to obtain less Euros in result. On the contrary, the depreciation of the Euro with respect to these currencies would benefit Kiabi as it would allow the company to buy more Euros with each unit of foreign currency. Many of Kiabi's suppliers, as portrayed by Figure A11.1.4 are also located outside of the EU, so they have currencies different to the Euro. The appreciation of the Euro respect to these currencies will benefit Kiabi as it will allow the company to purchase more of the foreign currencies for the same amount of Euro, making the supplies less expensive for Kiabi. In the opposite case, if the Euro depreciated respect to the supplier's currencies, Kiabi would be able to buy less of the foreign currencies for each Euro thus, having subcontractors would end up being more expensive than before.

Minimum wages

To understand how Kiabi's garments have such low prices, it is interesting to check minimum wages in the countries where Kiabi has its subcontracted partners. However, knowing the value of minimum wages is not enough to understand what amount of the worker's life can be covered with them. Thus, the correction of the wages with the Purchasing Power Parity in US Dollars must be considered, since it will allow us to compare the standards of living of the subcontractor's countries. As observable in Figure A11.1.5, done using a calculation in Figure A11.1.6, the minimum wages in Kiabi's suppliers' countries are quite low, which is a way for Kiabi to reduce its costs. The regions with the most suppliers, which are China, Bangladesh and Europe have monthly minimum wages of $320, $96 and $909 respectively and PPPs that amount $556 and $235 for the two former countries (ILOSTAT, 2017). However, there are regions with considerable PPPs where Kiabi has very few suppliers such as Morocco (PPP of $559), Pakistan (PPP of $489) and Indonesia (PPP of $304) (ILOSTAT, 2017). Although lowering costs through wages is positive for the company in economic terms, low PPP values indicate that salaries may not be covering the basic needs of the workers, which may have social repercussions for Kiabi, such as a deterioration of the company's image, strikes in supplier's countries, etc. which could even lead to economic repercussions.

Covid-19: Recession

The Covid-19 health crisis has led to an important worldwide economic recession. This virus has caused the death of almost 2 Million people worldwide, the application of restrictive measures during the various waves of incidence of the virus, the decrease of activity and income worldwide, and the increase of people in extreme poverty situations. Thus, in 2020 the global GDP has decreased by 4.3%. The development and application of effective vaccines, lead to the provision of some economic recovery in 2021, which should continue in 2022. Furthermore, although in 2020 it is already possible to observe an improvement of the trade and activity in the goods sector, the services sector is still struggling (World Bank Group, 2021).

As a fashion retailer, Kiabi has been affected by this economic recession. Many of the countries where the firm has its shops and suppliers have experienced a deep GDP decrease, which are stated in Figures A11.1.7 and A11.1.8. The recession caused by Covid-19 where Kiabi has its subsidiaries and franchises is the reason why the demand for its goods may have decreased. This is a widespread phenomenon in the fashion industry: the industry's revenue pool in 2020 will decrease by 15 to 20% in a scenario where there is an earlier recovery, and between 25 and 30% in a late recovery scenario, impacting Europe, the US and China the most (McKinsey & Company, 2020). However, Kiabi could recover from this decrease of demand because it offers inclusive, affordable apparel for the whole family. In addition, offering its garments on-line may have helped Kiabi survive the toughest moments of the pandemic, selling items while respecting each country's lockdowns and restrictions. However, the recession in supplier's countries and the subsequent impoverishment of such regions can be detrimental for Kiabi, since the loss of learning-adjusted school years of the youngest generation could deteriorate the quality of the future human capital producing goods for the company (World Bank Group, 2021). However, this is a long-term issue that is yet to be confirmed.

c) Socio-Cultural factors

The Covid-19 crisis has changed in many ways the way fashion is perceived by society and consumers in several aspects.

On-line retail

The global pandemic, with its lockdowns and restrictions in different countries difficulted in-person shopping, and the fear of infection made customers reluctant to shop in crowded environments, shifting in 2020 fashion retail to on-line channels. In fact, in eight months, the share of the sales made via e-commerce went from 16% to 29% globally (McKinsey & Company, 2020). Furthermore, in 2021, the sales of fashion retailers are also expected to grow via e-commerce (McKinsey & Company, 2020). Kiabi already offers its garments on-line, ensuring the sales during the pandemic. Furthermore, it will be interesting for the company to continue developing this part of the business, finding new innovative ways to make customers engage and consume on-line.

Sustainability (Organizational Image)

Up until 2019, the fashion industry was already pressured to be more environmentally sustainable thanks to the activism of personalities like Greta Thunberg. Younger generations are more aware of the sustainability issues caused by the fashion industry: 31% of Generation Z people are willing to pay more for more environmentally sensitive products (McKinsey & Company, 2019). Furthermore, there is a lack of consumer trust in fashion companies because they often do greenwashing, defined as using sustainability for marketing purposes, instead of changing their business from its core (McKinsey & Company, 2019). Customers have also become conscious of the social sustainability of fashion companies, being aware of the vulnerability of subcontracted workers in developing countries during Covid-19 times (McKinsey & Company, 2020). The closing of factories in the first trimester of 2020 because of the pandemic and the consequent cancelling of orders and delay of payments was very

prejudicial for many garment workers in developing countries. This led to the creation of a worldwide consumer campaign known as #PayUp, which aimed to make companies pay its suppliers and subcontracted manufacturers (McKinsey & Company, 2020). Moreover, social sustainability is checked throughout the whole value chain, and in 2020, two-thirds of consumers stated they would stop or decrease their purchasing of products from brands mistreating employees or suppliers (McKinsey & Company, 2020). Consumers, employees, and other stakeholders also demand companies to mirror their values, by being more inclusive and diverse. Such inclusivity includes, the wider representation of non-white people, sizes, ages, LGBTQ+, and disabilities. Furthermore, almost two-thirds of consumers consider themselves "belief-driven buyers" in 2019, giving preference or boycotting fashion brands depending on their societal status (McKinsey & Company, 2019). Consumers also want fashion brands to be more involved in socio-political values, and in 2020, 54% of consumers agreed that brands have a key position in social conversations such as the Me Too movement, or the US Black Lives Matter movement (McKinsey & Company, 2020).

Kiabi started to implement a transparency policy in 2018, consisting in a yearly publication of extra-financial performance reports. For the moment the company has published two of them, and they include information about the corporate strategy, the governance structure of the company, an analysis of the different risks regarding environmental and social sustainability of the company and how the company intends to solve them. Kiabi Human is the name of the RSE (Responsabilité Sociale et Environnementale, in French, Social and Environmental Responsibility) strategy of the company, and it is based in four main pillars. Firstly, Kiabi aims to develop sustainable fashion by eco-designing its products and making its whole value chain sustainable. Kiabi also conceives its products to be budget-inclusive as well as size-inclusive, and available for disabled children and adults. Secondly, the company's goal is to guarantee ethics and conformity by making public the information about it suppliers, since Kiabi aims to work with suppliers that respect the values of the company, and provides education and assistance on human rights respect and security to them. Thirdly, Kiabi also optimizes its distribution to make it more sustainable by not only considering the carbon emissions during the transport of goods, but also the energy and waste management of the shops. Finally, Kiabi is committed to mankind by providing space for its workers to grow inside the company, the inclusion of disabled workers, and ensuring their happiness through the "Happy Kiabier" barometer (KIABI, 2020). Although their RSE reports show that Kiabi still has to improve its social and environmental sustainability, Kiabi tries to become more sustainable. For now, Kiabi only offers its RSE report in French, and it would be key to offer it at least in English, and optimally, in all the official languages from the countries where the shops are located, allowing all potential customers to access this information.

d) Technological factors

Organic Cotton development

Kiabi has been working since 2017 to offer more products made of organic cotton. On the one hand they increase the use of biologic cotton: cultivated without pesticides, with natural fertilizers and a responsible water use. On the other hand, they also support the Better Cotton Initiative, encouraging their suppliers to provide more sustainable raw materials (KIABI, 2020).

Recycled materials

Kiabi is on the way of substituting polyester as a raw material with recycled polyester, made out of waste from pre or post consumption such as plastic bottles, thus reducing the company's use of petrol-based raw materials. Kiabi also tries to include recycled cotton as a raw material for its garments (KIABI, 2020).

Access to internet of customers

Since Kiabi has an on-line shop, knowing the percentage of people with access to the internet in the buyers' countries is key to know how successful the company can become in that area (see Figure A11.1.9 for more detailed data). In all countries where Kiabi has its shops, except three, more than 50% of the population uses the internet, and in 8 countries more than 80% of the population uses the internet: Russia, Saudi Arabia, France, Spain, Belgium, Poland, United Arab Emirates, and Malta (World Bank Data, 2019). This knowledge is important because, in those countries, Kiabi's on-line sales can be potentially reinforced thanks to the spread use of the internet. Furthermore, three countries had less than half of the population using the internet: Ivory Coast, with 36.454%, Republic of Congo, with only 8.65%, and Senegal, with 46% (World Bank Data, 2019). In these regions, Kiabi's on-line shop will probably not be successful, so to prosper there, Kiabi should focus more on the physical shops. However, because of the Covid-19 pandemic, this may be complicated, and the presence of Kiabi in these regions is risky.

Big data

Kiabi's latest movement regarding Big Data was in 2018, with its SMACK project, performed in conjunction with Capgemini. This project consists of presenting data from customers in a simplified way to help Kiabi's employees perform their tasks. Furthermore, this provides unified, real-time cross-channel customer data that can help employees create more precise customer profiles to fulfill better their needs and wants (Capgemini España, 2018).

e) Environmental factors

Carbon Emissions

Carbon dioxide emissions are produced by Kiabi's whole value chain (KIABI, 2020): from the obtaining of raw materials and manufacturing of the products, the logistics, the sale of goods, the use of the garments and the end of the life of the product. Kiabi is trying to improve the obtaining of raw materials and manufacturing of the products by using new techniques, such as the fading of jeans with a laser method, avoiding the use of chemicals or water waste. Regarding the logistics of the company, Kiabi is in the process of reducing air and air/sea transportation, since they have the most negative impact, increasing train transportation, and multimodal transport (formed by Barge and train transport). Furthermore, Kiabi also keeps track of the waste of energy of the shops, and tries to optimize their use of energy. Although measures of carbon emissions reduction are being taken, until all measures are engrained 100% in the functioning of the company, which can take years, the company will still uses emit carbon dioxide to the atmosphere.

Water Waste and pollution

Water waste and pollution is focused in two parts of Kiabi's value chain: the obtaining of raw materials and manufacturing of products, and the product use. On the one hand, Kiabi already tries to reduce water consumption and pollution through different measures such as the use of organic cotton as a raw material, or the laser fading of jeans, which saves approximately 10 water liters and 22 grams of chemical substances per product (KIABI, 2020). Kiabi also tries to prevent excessive water consumption and pollution due to the use of the clothes by sensitizing its clients on how to clean and preserve clothes. On the other hand, even if some measures are being taken, they are not fully implemented in the whole value chain, and to produce all garments. As stated before, the application of these measures may take years, during which the company will waste and pollute water.

Soil degradation

Although Kiabi does not consider on its RSE report the soil degradation caused by its value chain, it could be happening mainly in the obtaining of raw materials, specifically cotton, due to the use of chemical pesticides and fertilizers. Although Kiabi is trying to increase the production of sale of garments made of organic cotton, the use of sustainable materials in all garments may take a long time, during which Kiabi's activities will still be degrading soil.

Waste created at the end of the life of the product

Kiabi started a clothing collection initiative in its French stores in 2018, where people were invited to donate their old clothes, rewarded with extra points for their fidelity card. Kiabi also prevents the waste of unsold clothes by donating them to the *Agence du don en Nature,* which distributes them to people in need, by opening in 2017 and 2018 two solidary shops, and by having *Le Relais* as a partner for these types of initiatives (KIABI, 2020). The company also reduces waste from the distribution of the products, by making suppliers use Kraft-made boxes, reusing boxes during the transport of goods, and giving the bags in stores made of recycled plastic or paper (KIABI, 2020). Moreover, Kiabi is also aiming to give a second life to clothes from any brand with the creation of Seconde Main by Kiabi, a combination of on-line and in-person second-hand retail business that will be present in France, Spain, Italy and Belgium (Modaes, 2021). Although these activities are very positive locally in France, and in three more countries, it would be important for the company to expand them through all territories.

f) Legal factors

Employment and labour laws for its subcontracted suppliers, and its own workers

Kiabi respects the labor laws of every country where its value chain is performed, including both suppliers and the workers in the distribution part of the business. On the one hand, Kiabi audits and assists its Type 1 and 2 suppliers on human rights, worker's rights, security, and also guarantees the respect of local work legislation. On the other hand, employment laws are also followed Kiabi's buyers countries. For instance, Kiabi provides wages at the level of the minimum wages, but also provides "medium" and "maxi" wages depending on the level of responsibility of the employee. The company also respects wage parity between men and

women, following law stipulations of each country, and even surpassing them. Furthermore, workers receive training on security, crisis prevention, or first aids, allowing them to perform their jobs with even better prospects (Kiabi, 2020).

Sustainable Development Goals (see Annex 1)

Kiabi already respects and has a clear protocol on the social Sustainable Development Goals, such as SDG1, the elimination of poverty, SDG3, the ensuring of good health and well-being, SDG 8, the promotion of decent work and economic growth (United Nations, 2020). However, although Kiabi is innovating its value chain to make it more sustainable, it will take many years and a great investment for the company to become completely sustainable. While these slow changes on its business model happen, Kiabi will be delaying the implementation of the SDG6, ensuring the availability of clean water and sanitation, SDG9, the building of industry innovation and sustainable infrastructure, SDG12, providing sustainable consumption and production patterns, SDG13, the urgent action to combat climate change and its impacts, SDG14, and the conservation and sustainability of life below water (United Nations, 2020).

Figure A11.1.1: PSI of Countries of Kiabi's subsidiaries or franchises

COUNTRY	**PSI**	**NUMBER OF SHOPS (Kiabi 2019 data)**
Algeria	-1	3
Ivory Coast	-0.96	1
Republic of Congo	-0.89	1
Tunisia	-0.83	4
Brazil	-0.55	2
Russia	-0.54	20
Saudi Arabia	-0.43	9
Morocco	-0.37	16
French Guiana	No data available	1
Gabon	-0.18	1
Senegal	0.06	1
France	0.31	332
Spain	0.32	55

Italy	0.46	34
Belgium	0.48	6
Poland	0.52	2
United Arab Emirates	0.7	3
Malta	1.09	2
Portugal	1.13	7
La Réunion	No data available	3
Guadeloupe	No data available	3
Martinique	No data available	2

Own Elaboration from Theglobaleconomy.com, 2019, and KIABI, 2020

Figure A11.1.2: PSI of countries of Kiabi's Suppliers

COUNTRY	**PSI**	**NUMBER OF SUPPLIERS (Kiabi 2019 data)**
Pakistan	-2.25	5
Turkey	-1.34	5
Ethiopia	-1.28	No data available
Bangladesh	-0.92	23
India	-0.7	15
Indonesia	-0.48	1
Morocco	-0.37	5
China	-0.24	60
Sri Lanka	-0.23	1

Cambodia	-0.08	No data available
Vietnam	0.13	No data available
Myanmar	No data available	No data available
European Importers	Average PSI of 0.59 Points	22

Source: own elaboration from Theglobaleconomy.com, 2019, and KIABI, 2020

Figure A11.1.3: Exchange Rates in countries where Kiabi has its subsidiaries and franchises

COUNTRY	**CURRENCY**	**EXCHANGE RATE RESPECT TO € (1€= X foreign currency)**	**NUMBER OF SHOPS (Kiabi 2019 data)**
Algeria (XE)	Algerian dinar	162.543 DZD	3
Ivory Coast (XE)	West African CFA franc	655.957 XOF	1
Republic of Congo (XE)	Central African CFA franc	655.957 XAF	1
Tunisia (XE)	Tunisian dinar	3.28307 TND	4
Brazil (European Central Bank)	Brazilian real	6.5748 BRL	2
Russia (European Central Bank)	Russian ruble	90.8000 RUB	20
Saudi Arabia (XE)	Saudi Arabian riyal	4.58301 SAR	9
Morocco (XE)	Moroccan dirham	10.7822 MAD	16
French Guiana	European Euro	1 EUR	1
Gabon (XE)	Central African CFA franc	655.957 XAF	1
Senegal (XE)	West African CFA franc	655.957 XOF	1
France	European Euro	1 EUR	332
Spain	European Euro	1 EUR	55

Italy	European Euro	1 EUR	34
Belgium	European Euro	1 EUR	6
Poland	Polish zloty	1 EUR	2
United Arab Emirates (X-Rates)	UAE dirham	4.488488 AED	3
Malta	European Euro	1 EUR	2
Portugal	European Euro	1 EUR	7
La Réunion	European Euro	1 EUR	3
Guadeloupe	European Euro	1 EUR	3
Martinique	European Euro	1 EUR	2

Source: own elaboration from European Central Bank, 2021, X-rates, 2021, XE, 2021, and KIABI, 2020

Figure A11.1.4: Exchange rates in countries where Kiabi has its suppliers

COUNTRY	**CURRENCY**	**VALUE RESPECT TO € (1€= X foreign currency)**	**NUMBER OF SUPPLIERS (Kiabi 2019 data)**
Pakistan (X-rates)	Pakistani rupee	195.897888 PKR	5
Turkey (European Central Bank)	Turkish lira	9.0146 TRY	5
Ethiopia (XE)	Ethiopian birr	48.0426 ETB	No data available
Bangladesh (XE)	Bangladeshi taka	103.683 BDT	23
India (European Central Bank)	Indian rupee	89.7975 INR	15
Indonesia (European Central Bank)	Indonesian rupiah	17247.33 IDR	1
Morocco (XE)	Moroccan dirham	10.7822 MAD	5
China (European Central Bank)	Chinese Yuan Renminbi	7.9184 CNY	60

Sri Lanka (X-rates)	Sri Lankan rupee	230.077857 LKR	1
Cambodia (XE)	Cambodian riel	4,949.59 KHR	No data available
Vietnam (XE)	Vietnamese dong	28,374.76 VND	No data available
Myanmar (XE)	Myanmar kyat	1,625.30 MMK	No data available
European Importers	European Euro	1 EUR	22

Source: own elaboration from European Central Bank, 2021, X-rates, 2021, XE, 2021, and KIABI, 2020

Figure A11.1.5: Minimum Wages and PPP in the countries where Kiabi has its suppliers

COUNTRY	**MINIMUM WAGE (USD/Month)**	**PPP OF WAGES (USD/ Month)**	**NUMBER OF SUPPLIERS (Kiabi 2019 data)**
Pakistan	152	489	5
Turkey	420	No data available	5
Ethiopia	25	77	No data available
Bangladesh	96	235	23
India	51	171	15
Indonesia	127	304	1
Morocco	278	559	5
China	320	556	60
Sri Lanka	51	151	1
Cambodia	80	No data available	No data available
Vietnam	No data available	No data available	No data available
Myanmar	No data Available	No data available	No data available

European Importers (Average European Countries)	909* Obtaining of this value in Figure A11.1.6	No data available	22

Source: own elaboration from ILOSTAT, 2017, and KIABI, 2020

Figure A11.1.6: Calculation of the mean minimum wage in Europe

Country Europe	**Minimum Wage ($)**	**Country Europe**	**Minimum Wage ($)**
Luxembourg	2359	Chzechia	561
Ireland	1905	Croatia	548
Netherlands	1882	Hungary	511
UK	1734	Romania	482
Belgium	1844	Turkey	420
Germany	1768	Latvia	508
France	1769	Serbia	333
Spain	1013	Montenegro	340
Slovenia	995	Bulgaria	308
Malta	882	Albania	222
Greece	807	Denmark	-
Portugal	799	Italy	-
Poland	581	Cyprus	-
Lithouania	472	Austria	-
Estonia	590	Finland	-
Slovakia	576	Sweden	-
Iceland	-	Switzerland	-
Norway	-	North Macedonia	333
		Mean	**908,962963**

Source: own elaboration from ILOSTAT, 2017

Note: The selection of countries for this calculation has been done following the Eurostat data browser (Eurostat, 2020). However, as the information was given in Euros, we used the

ILOSTAT data to fill in the values. The lack of data in some cells means that ILO did not provide data about such countries. The ILO did provide information about the minimum wages, but did not provide any data about the PPP of these countries.

Figure A11.1.7: Change of GDP in 2020 and 2021 in countries where Kiabi has shops

COUNTRY	**%CHANGE GDP (2020 estimate)**	**% CHANGE GDP (2021 forecast)**	**NUMBER OF SHOPS (Kiabi 2019 data)**
Algeria	-6.5	3.8	3
Ivory Coast	1.8	5.5	1
Republic of Congo	-8.9	-2.0	1
Tunisia	-9.1	5.8	4
Brazil	-4.5	3.0	2
Russia	-4.0	2.6	20
Saudi Arabia	-5.4	2.0	9
Morocco	-6.3	4.0	16
Guyane	No data available	No data available	1
Gabon	-2.4	1.9	1
Senegal	-0.7	3.5	1
France (Euro Area data)	-7.4	3.6	332
Spain (Euro Area data)	-7.4	3.6	55
Italy (Euro Area data)	-7.4	3.6	34
Belgium (Euro Area data)	-7.4	3.6	6
Poland	-3.4	3.5	2
United Arab Emirates	-6.3	1.0	3
Malta (Euro Area data)	-7.4	3.6	2
Portugal (Euro Area data)	-7.4	3.6	7

La Réunion	No data available	No data available	3
Guadeloupe	No data available	No data available	3
Martinique	No data available	No data available	2

Source: own elaboration from World Bank Group, 2021 and KIABI, 2020

Figure A11.1.8: Change of GDP in 2020 and 2021 in countries where Kiabi has its suppliers

COUNTRY	**%CHANGE GDP (2020 estimate)**	**% CHANGE GDP (2021 forecast)**	**NUMBER OF SUPPLIERS (Kiabi 2019 data)**
Pakistan	-1.5	0.5	5
Turkey	0.5	4.5	5
Ethiopia	6.1	0.0	No data available
Bangladesh	2.0	1.6	23
India	-9.6	5.4	15
Indonesia	-2.2	4.4	1
Morocco	-6.3	4.0	5
China	2.0	7.9	60
Sri Lanka	-6.7	3.3	1
Cambodia	-2.0	4.0	No data available
Vietnam	2.8	6.7	No data available
Myanmar	1.7	2.0	No data available
European Importers (Average European Countries)	-7.4	3.6	22

Source: own elaboration from World Bank Group, 2021, and KIABI, 2020

Figure A11.1.9: Percentage of population using the internet where Kiabi has its shops

COUNTRY	% OF POPULATION USING THE INTERNET (Data from 2019)	NUMBER OF SHOPS (Kiabi 2019 data)
Algeria	59.58%	3
Ivory Coast	36.454%	1
Republic of Congo	8.65%	1
Tunisia	66.7%	4
Brazil	67.471%	2
Russia	82.642%	20
Saudi Arabia	95.725%	9
Morocco	74.376%	16
French Guiana	No data available	1
Gabon	62%	1
Senegal	46%	1
France	83.34%	332
Spain	90.719%	55
Italy	74.387%	34
Belgium	90.371%	6
Poland	84.517%	2
United Arab Emirates	99.15%	3
Malta	85.779%	2
Portugal	75.346%	7
La Réunion	No data available	3
Guadeloupe	No data available	3

Martinique	No data available	2

Source: own elaboration from World Bank Data, 2019, and KIABI, 2020

Annex 11.2 Percentil

a) Political factors

European Trade Agreements and Tax Benefits

Percentil (Casi Nuevo Kids SL) is a Spanish company, so it is from the European Union. This is advantageous for Percentil as the company benefits from the different trade agreements and reduced taxing for EU companies. This allows the company to be present in other EU member states such as France, Germany, and the Netherlands as shown (Annex 12a), and also eases the future presence of the company in countries outside of the EU (Europe Immigration Service, 2020; European Commission, n.d.).

Government stability

In order for Percentil to complete its activities and reduce risks, the political stability of the countries in which it is present is essential, and to measure it we will use the the Political Stability Index. A value of 2.5 implies a strong Political Stability a value of -2.5 implies a weak political stability, and the mean value of this Index is -0.05, which is useful to use as a reference (Theglobaleconomy.com, 2019). As the data gathered in Figure A11.2.1 shows, all the countries in which Percentil is present have a PSI above the mean of -0.05. This means that Percentil is present only in politically stable countries, so the company is not taking any risks in this aspect.

Covid-19

The worldwide health, economic and political crisis caused by Covid-19 led to different lockdowns, restrictions and even border closures in order to mitigate its spread. This has led to the disruption of the value chains of many fashion companies (McKinsey & Company, 2020). In the case of the countries in which Percentil is active, France, Spain, Germany, and the Netherlands, all of them have had some kind of lockdown that only allowed essential workers to go outside of their homes, and some countries like France, and The Netherlands have had to face more than one national lockdowns. (Mercier, Terragno & François, 2020; Goal.com, 2021; Marcus, 2020; Darroch, 2020). Hard lockdowns were problematic in terms of supply for Percentil, especially the Spanish lockdown, as there was an important decrease in the amount of clothes that arrived at the company's warehouse (Annex 12d).

b) Economic factors

Different Currencies

Percentil is only present in countries in the Euro Area, so the currency used by all of them is the Euro. Thus, Percentil does not have any Exchange Rate Risk caused by neither the sellers or the buyers (Figure A11.2.2).

Annual GDP/Capita

It is useful to study the Annual GDP per capita in the countries where Percentil is present, adjusted for current prices of goods in the market, to compare the living standards of Percentil's seller and buyer users. As it is possible to observe on Figure A11.2.3 all countries have similar annual GDP/capita, Spain having the lowest, and the Netherlands the highest. The sellers and buyers in Percentil's platform have similar living standards across countries, which benefits Percentil in that its customers will have similar perceptions of the value of the clothes sold and purchased across countries through the platform.

Covid-19 Recession

In this same section of Kiabi's PESTEL analysis, the effects of the Covid-19 economic recession are explained. All the countries in which Percentil is present are considered Advanced Economies, as they are from the EU area. These countries experienced a decrease of GDP of 5.4% in 2020, but GDP is expected to grow by 3.3% in 2021, and by 3.5% in 2022. Since these countries are expected to recover economically, it seems that the crisis will not be too harmful for Percentil. Moreover, the downfall of GDP could even be helpful in the future since it could open people's minds to sell their old clothes to earn some extra money, and potential buyers would be attracted to Percentil's inexpensive good-quality second-hand garments, which is a win-win situation for sellers and buyers in the platform. Also, the fact that Percentil is an ecommerce allows consumers to buy garments respecting all restrictions, which has helped Percentil survive through this pandemic (Annex 12d).

c) Socio-Cultural factors

As explained in the Socio-Cultural part of Kiabi's PESTEL analysis, consumers have new values, reinforced by the Covid-19 crisis. These have also affected the global environment in which Percentil acts.

On-line retail

The fact that Percentil is an ecommerce was beneficial for it, especially during the Spanish lockdown due to the Covid-19 pandemic. Although the supply of clothes to Percentil dropped considerably, the sales of second-hand clothes boomed, and Percentil was able to sell 100,000 second-hand garments during lockdown, 60% of the company's inventory (Annex 12d).

Sustainability (Organizational Image)

Also, during the different worldwide lockdowns, customers have become more interested in having an environmentally and socially sustainable wardrobe, questioning the quantity, quality and precedence of the clothes they own and buy. This has been beneficial for Percentil, and has allowed the company to increase its sales thanks to the offer of a new way of selling and purchasing second-hand clothes with guaranteed quality standards (Annex 12d). From a social standpoint, the clothes that cannot be sold in Percentil's webpage are sent to different NGOs,

and since the funding of the company in 2012, Percentil has donated 1.600.000 pieces of clothing (Annex 12b). In addition, the prices at which Percentil sells these good quality second-hand garments make them accessible to a wide array of customers (Annex 12c). Percentil is already offering a social and environmentally sustainable business model. However, Percentil has not published any Social and Environmental Responsibility report, really covering all of the sustainability pros and cons of the company's value chain. Another noteworthy point is that, being an ecommerce, Percentil must ship the garments through a variety of means of transport, but the company does not offer data on how many carbon emissions are emitted.

d) Technological factors

Recycling of materials

Percentil's activities focus on the purchase and sale of second-hand clothing, which per-se could be considered a way of recycling the garments (Annex 12c). The selection of the garments that are in a good state and that can be sold is done by hand, and for the moment no innovative technology is being used for this part of the value chain.

Access to internet of customer countries

As Percentil is an ecommerce company, the countries in which it is present should have a high percentage of the population using the internet. As it is possible to observe in Figure A11.2.4, this is the case, since in all countries where it is present, more than 80% of the population use the internet.

Big Data

There is no information available that states that Percentil uses Big Data to improve the functioning of their business. This could be useful for them to know the different profiles of clients using Percentil, and to improve the performance of the webpage, adapting it to the different types of customers.

e) Environmental factors

Carbon Emissions

Thanks to being a business focused on the purchase and sale of second-hand clothes, Percentil elongates the life of clothes that already exist. So, to satisfy the buyer's demand, Percentil does not create the clothes from scratch, avoiding the emissions of Carbon Dioxide involved with that, and preventing clothes that are still in good shape to be landfilled or burned. On the negative side, as Percentil is an e-commerce, this means that an important part of its business is the transport of the goods, done using means of transport that create carbon pollution, which is problematic. Since Percentil does not publish yearly RSE reports, there is no information on the emissions of the company globally or per piece of clothing.

Water Waste and Pollution

The increase of the lifespan of clothes caused by Percentil also prevents water waste and pollution. Since the company does not manufacture new goods, reselling existing ones, the water waste involved in the obtaining of raw materials and manufacture are avoided. However,

what is more difficult to prevent is water waste and pollution during the use of such clothes, and Percentil does not provide much information to their clients on how to reduce it.

Soil degradation

The fact that Percentil does not produce goods is an advantage in order to prevent soil degradation. Not needing raw materials such as cotton, which degrades the soil of the plantations with the use of chemical pesticides and fertilizers, Percentils' activities do not lead to soil degradation.

Waste created at the end of the life of the product

Percentil per-se can be considered as a company that gives new life to clothes that are considered waste by their owners, who willingly send them to Percentil. The company checks the clothes, and sells the ones that are in good shape. The clothes that cannot be sold in the on-line shop are donated to different NGOs, giving a second chance to as many clothes as possible. In the future, the company aims to go further by using the waste created from the clothes they do not put on sale on the website and cannot be donated to create new products (Annex 12c). In addition, the company also reintroduces into the system and reuses the bags and hangers in which the garments are stored (Annex 12c).

f) Legal factors

Sustainable Development Goals (See Annex 1)

Percentil's business model promotes the accomplishment of most SDGs. From a social point of view, the company allows the development of SDG1, the elimination of poverty, SDG3, the ensuring of good health and well-being, SDG 8, the promotion of decent work and economic growth. In addition, from an environmental point of view, the company also promotes the application of SDG6, ensuring the availability of clean water and sanitation, SDG9, the building of industry innovation and sustainable infrastructure, SDG12, providing sustainable consumption and production patterns, SDG13, the urgent action to combat climate change and its impacts, and SDG14, the conservation and sustainability of life below water (United Nations, 2020).

Figure A11.2.1: PSI of the countries where Percentil is present

COUNTRY	**PSI**
France	0.31
Spain	0.32
Germany	0.58
The Netherlands	0.86

Source: own elaboration from Theglobaleconomy.com, 2019

Figure A11.2.2: Currencies of the countries where Percentil is present

COUNTRY	CURRENCY	VALUE RESPECT TO € (1€= X foreign currency)
Spain	European Euro	1 EUR
France	European Euro	1 EUR
Germany	European Euro	1 EUR
Netherlands	European Euro	1 EUR

Source: own elaboration from Countries-ofthe-world.com, n.d.

Figure A11.2.3: Annual GDP per capita at market prices in the countries where Percentil is present

COUNTRY	GDP per capita (EUR/Year) in 2019
Spain	26,430
France	35,960
Germany	41,510
Netherlands	46,710

Source: own elaboration from Eurostat, 2021.

Figure A11.2.4: Percentage of the population using the internet in the countries where Percentil is present

COUNTRY	% OF POPULATION USING THE INTERNET (2019)
Spain	90.719%
France	83.34%
Germany	88.135%
Netherlands	93.289%

Source: own elaboration from World Bank Data, 2019

Annex 12: Press Releases and Interview from Percentil

Annex 12a- Press Release Percentil 2018

PER|CEN|TIL

LA MAYOR TIENDA ONLINE DE MODA CASI NUEVA PARA NIÑOS Y MUJER

Startup de origen español nacida en septiembre de 2012 y fundada por Luis Ongil, Lourdes Ferrer y Daniel Bezares cuyo modelo de negocio está basado en el consumo colaborativo. PERCENTIL es la plataforma online de compra-venta de ropa infantil y de mujer casi nueva, líder en Europa.

ASÍ FUNCIONAMOS:

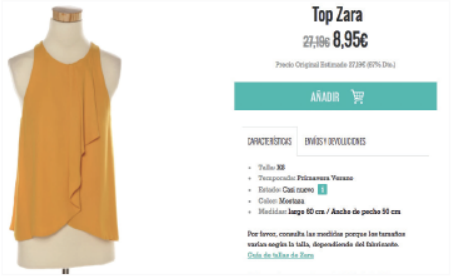
1. Enviamos una Bolsa de forma gratuita para que el cliente la rellene con ropa (nueva o casi-nueva) que quiera vender.

2. Un mensajero recoge la Bolsa gratuitamente en el domicilio.

3. La Bolsa llega a PERCENTIL, donde la ropa pasará nuestro proceso de filtrado en el cual se aceptarán o descartarán las prendas en función de nuestros criterios de aprobación.

4. Una vez filtrada la Bolsa enviamos un email con la valoración de la ropa: el número de prendas aceptadas, el precio de venta estimado (en torno a un 60%-70% de descuento de lo que se estima que costó en su día) y el precio que corresponde a la vendedora por cada prenda vendida, según nuestra tabla de % por rango de precios y descontando el IVA (21%).

   Por ejemplo, en el caso de esta blusa de Zara estimamos que costó 27,19€, se vende por 8,95€ y la vendedora se llevaría 1,04€.



5. Para ayudar a la venta se podrían aplicar descuentos progresivos a partir del día 15 de publicación en nuestra tienda online.

6. La vendedora puede recuperar, reciclar o donar a ONG's las prendas no aceptadas o que finalmente no se hayan vendido entre 4 o 7 meses aproximadamente.

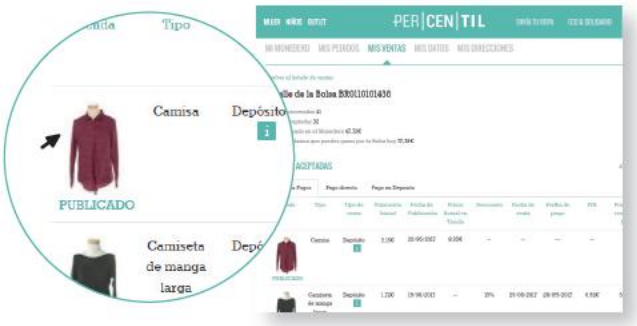
   También se pueden recuperar las prendas publicadas, una vez que hayan estado 7 días reales en nuestra tienda online, por cualquier motivo (no estar conforme con el precio, arrepentimiento...)

   **(Siempre en el caso de recuperar hay que pagar un coste adicional).*

COMPARTE TUS PRENDAS EN LAS REDES SOCIALES PARA VENDERLAS ANTES Y GANAR MÁS DINERO POR ELLAS:

1.

Accede a cualquiera de tus prendas en la sección "Mis ventas".



2.

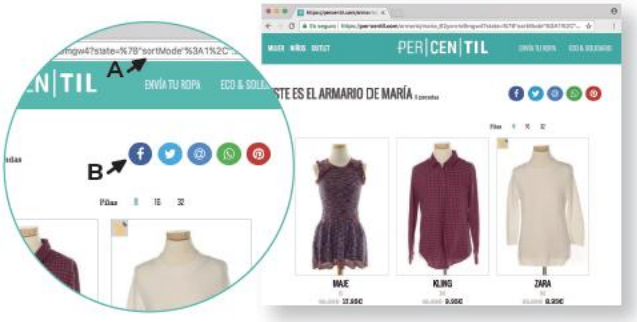
Entra en la ficha del producto y clicka en el enlace de tu armario.

3.

Puedes compartir tus prendas de dos maneras:

A. Copia el enlace de tu armario y compartelo.

B. Haz click en tus redes sociales.



NUESTRA ROPA

Siempre en perfecto estado, limpia, con las etiquetas de marca y talla (si tuviera), y sin adornos personalizados. Las prendas deben ser actuales (menos de 5 años de antigüedad), aunque siempre se harán excepciones con las prendas vintage de gamas exclusivas.

Contamos con **más de 20.000 marcas diferentes**, entre las que encontramos algunas tan reconocidas como Neck & Neck, Gocco, NANOS o Benetton para los más pequeños, y como Zadig & Voltaire, Cos, Hoss Intropia, Zara o Massimo Dutti para mujer. Sin olvidarnos de algunas joyitas que encontrarás de marcas tan exclusivas como Armani, Prada o D&G.

PERCENTIL TE AYUDA A AYUDAR

PERCENTIL llega para crear una nueva forma de comprar ropa, buscando alternativas de consumo responsable, incentivando el ahorro y un cambio social que hace que comprar segunda mano, esté de moda.

ENTORNO

Intentamos reducir el alto impacto medioambiental que produce la industria de la moda debido al volumen de recursos que consume la fabricación y transporte de la ropa (agua, pesticidas/ fertilizantes, petróleo, energía, químicos y otros). Por ello, la compra de ropa de segunda mano es, además de una forma de ahorrar, una buena manera de contribuir a la mejora del medio ambiente.

ONG

Para PERCENTIL, las personas son importantes, y cada prenda también lo es. Por eso cuando una prenda no cumple con los estándares de calidad necesarios para ser vendida, PERCENTIL la dona a ONGs que la destinan a sus proyectos sociales o la envía a empresas de reciclaje que le dan una segunda vida a la ropa.

PERCENTIL ES LÍDER EN EUROPA

en su segmento de compra-venta de ropa online de ropa infantil y de mujer en "Consigment", principalmente entre cuatro mercados clave: España, Francia, Alemania y Holanda.

ACTUALMENTE:

- 4.25 Millones prendas procesadas.
- 1.47 Millones prendas vendidas.
- 191.000 familias compran y venden en PERCENTIL.
- Más de 50 personas en el equipo.
- Más de 2.000 nuevas prendas cada día.
- Un ahorro de más de 19 millones de euros para las familias.
- Más de 2 millones de prendas donadas a ONGs, con el permiso de las vendedoras (prendas no aceptadas al ser filtradas).
- 240.000 pedidos de clientes satisfechos.

En PERCENTIL cada prenda es única porque contiene una historia irrepetible.
En PERCENTIL cada persona es única y por tanto, la forma en la que se viste.

Comprando Ropa Casi Nueva no solo ahorras dinero, sino que además contribuyes a que millones de prendas únicas, de personas únicas sigan viviendo historias irrepetibles.
Y con ello ayudamos entre todos a reducir el impacto medioambiental de la fabricación de ropa nueva.

PER|CEN|TIL
#FashionForFuture

Contacto: Belén Martínez-Aldama
belen.aldama@percentil.com

Annex 12b- Press Release February 2020

PER|CEN|TIL

APUESTA POR LA MODA SOSTENIBLE CON PERCENTIL

Da una segunda vida a lo que ya existe y renueva tu armario al mejor precio

PERCENTIL es el mayor e-commerce de ropa de segunda mano, casi nueva, de España, con ropa y accesorios de más de 8.000 marcas.

La plataforma es líder en moda sostenible, pionera en un modelo de consumo responsable que apuesta por dar una segunda vida a prendas en perfecto estado.

Su riguroso control de calidad es una garantía para comprar moda a muy buen precio y su sencillo proceso de venta permite deshacerse de lo que ya no se usa, sin mayor esfuerzo que meterlo en una bolsa.

Madrid, febrero de 2020 – El mundo está cambiando a un ritmo vertiginoso, **el calentamiento global y sus consecuencias han puesto en entredicho nuestro modelo de consumo** y cada vez somos más los que vamos modificando nuestros hábitos con pequeños gestos, que sumados son una revolución. Hace mucho que quedó atrás la idea de que las tiendas de segunda mano son lugares pintorescos, muy comunes en Europa pero escasos en nuestro país.

La moda de segunda mano... está de moda. Si hace unos años había ciertas reticencias, hoy en día se trata de un movimiento imparable que no solo busca el ahorro, sino que viene acompañado de la conciencia de

que el impacto medioambiental del *fast fashion* es insostenible. Si podemos adquirir prendas en perfecto estado y a un precio estupendo para nosotros y nuestra familia, ¿a qué esperamos?

De todas las alternativas podemos encontrar, PERCENTIL, es sin duda una opción perfecta. **Se trata del mayor e-commerce de ropa de segunda mano de nuestro país**, en el que encontramos una amplísima oferta de prendas y complementos en perfecto estado.

01
Calidad y prendas actuales

Que levante la mano quien no haya tenido un desengaño al comprar productos de segunda mano. Ves una prenda o un complemento que te encanta, en la foto no se ve del todo bien pero intuyes que está en buen estado y así lo afirma el anuncio. Contactas con el comprador, regateas, por fin la recibes y... ¡chasco!

Esta es la primera ventaja de PERCENTIL: **su riguroso control de calidad y proceso de filtrado hace que solo un 40% de la ropa que reciben llegue a su tienda online**. Y además las prendas nos llegarán limpias, en perfecto estado, con sus etiquetas de marca y talla y sin adornos personalizados. Otro plus a tener en cuenta es que, salvo en su sección de prendas Vintage de marcas top, **todos sus artículos son actuales**, con menos de 5 años de antigüedad.

02
Variedad

Es una de las cosas que más buscamos en las tiendas online: una buena selección de marcas y variedad de estilos. En PERCENTIL ofrecen productos de más de 8.000 marcas, imposible no encontrar prendas y complementos que nos enamoren. Piensa en una marca o un diseñador y teclea su nombre en el buscador de su web, ¡seguro que lo encuentras! Y con un precio tan ajustado, ¿quién no se anima a dar rienda suelta a la creatividad y crear un estilo propio? **La renovación de su oferta es constante, ya que cada día se incorporan 2.000 productos nuevos al portal**. La variedad también pasa por las tallas; en esta tienda online las encontrarás todas, incluida una sección de tallas grandes y otra de moda para embarazadas.

03
Moda de grandes marcas y Moda Vintage

No hay quien se resista a la emoción de lucir prendas de grandes diseñadores cargadas de historia, esas que darán el toque perfecto a tu look y que lo harán único. Y, por supuesto, también puedes encontrarlas en PERCENTIL: **Kenzo, Cavalli, Etro, Prada, Valentino, Balmain... a precios increíbles y en perfecto estado**. ¿Estás buscando un regalo muy exclusivo para regalar o regalarte? Visita la sección Vintage o la de Marcas de Lujo de esta tienda online y descubre sus tesoros mejor guardados.

04
Para toda la familia

PERCENTIL nació como una plataforma especializada en moda infantil, aunque muy pronto incorporaron la **moda femenina**, que no ha parado de crecer y hoy supone un 70% de su oferta. Pero los niños siempre han sido muy importantes para esta plataforma, que debe su nombre al término que se utiliza en pediatría en relación al crecimiento de los niños. **En el caso de la moda infantil, el catálogo de este e-commerce es también súper extenso** e incluye marcas como Neck-Neck, Gocco, Nanos, Benetton o Polo Ralph Laurence. Además, **PERCENTIL también tiene moda masculina, lo que la hace única en su sector.**

05
PERCENTIL te ayuda a ayudar

Es el valor más importante de esta tienda online pionera, que desde 2012 apuesta por el consumo colaborativo y sostenible.

En primer lugar, **comprando en PERCENTIL ayudamos al planeta**, ya que para confeccionar una prenda de algodón se necesitan 2.900 litros de agua y por cada kg de ropa que se fabrica, se emiten 1.6 kg de CO2 a la atmósfera. Desde julio de 2012 **la plataforma ha vendido de 3 millones de prendas, dando una segunda vida a productos ya existentes** y rebajando de forma significativa el consumo de ropa nueva, contribuyendo de forma activa a minimizar el cambio climático.

En segundo lugar **ayudas a los demás**. Vendiendo ropa en PERCENTIL permitimos que gente con menos recursos pueda acceder a ropa de calidad a muy buenos precios, sacándoles así de la rueda del consumo de *fast fashion*. Además parte de la ropa que no puede ser vendida en la plataforma se ha venido destinando a diversos proyectos sociales de las ONGs Fundación Infancia y ONG Misión Internacional Llamada de Esperanza, además de colaboraciones puntuales con la Comisión Española de Ayuda al Refugiado, u Oxfam Intermon, entre otras.

Por último, **te ayudas a ti misma, ya que puedes ahorrar en tus compras de moda**, consiguiendo un estilo personal que te hace única, y también puedes hacer limpieza de tu armario o el de tus peques y vender las prendas que ya no usáis o nunca llegasteis a

estrenar, ganando un dinerillo con el que no contabas. Y todo esto, sin perder el tiempo intentando venderlas en plataformas donde el proceso de venta se eterniza.

06

La comodidad de vender en PERCENTIL

Sí, aunque comodidad y venta de segunda mano parezcan conceptos antagónicos, **vender en su tienda online es de lo más sencillo y no tiene ningún coste**. Ya no hay excusa para desprenderte de las prendas y complementos que no usas y hacerlo de la forma más sostenible.

PERCENTIL recoge tus prendas sin coste alguno y una vez llegan a sus instalaciones las selecciona y recicla las que no puedan venderse. Ellos se encargan de adecuar y planchar la ropa, fotografiarla, catalogarla, ponerle un precio y finalmente subirla a su web. También la almacenan, dan atención al cliente y realizan campañas de marketing para dar visibilidad a las nuevas incorporaciones a su *e-commerce*. Un método sencillo, que te libera de mil gestiones y en el que **solo tienes que ocuparte de seleccionar lo que envías y cobrar cuando tus prendas se vendan**.

Si todavía tienes alguna duda, lo mejor que puedes hacer es visitar la web de PERCENTIL Su navegación es intuitiva y permite que filtres lo que estás buscando hasta el último detalle, o que navegues durante horas entre sus miles de ofertas. Además, allí también encontrarás todas las explicaciones sobre el proceso de venta, que resolverán cualquier duda que puedas tener. Por último, te invitamos a que conozcas los detalles de este proyecto pionero, solidario y sostenible que seguro que te enamorará.

SOBRE PERCENTIL

PERCENTIL.com es una *startup* española fundada a mediados de 2012 por Luis Ongil, Lourdes Ferrer y Daniel Bezares, equipo fundador con experiencia en logística, marketing y moda. La visión de PERCENTIL es convertirse en la mayor empresa de compra-venta de ropa casi nueva en Europa, consiguiendo con ello lograr un cambio real en el consumo habitual de moda hacia un sistema más sostenible que reduzca la fabricación de ropa nueva.

Actualmente, la empresa opera en España, Francia y Alemania. En España,PERCENTIL cuenta con un equipo de 55 personas, 80.000 prendas en la tienda online y compra-vende más de 40.000 prendas mensuales en su centro de procesado en Madrid.

Hasta la fecha se han enviado más de 3 millones de prendas y 500.000 pedidos a clientes. Comprando ropa en PERCENTIL estos clientes han ahorrado más de 40 millones de euros y enviando ropa para su venta hangenerado ingresos superiores a 5 millones de euros.

Además, a través de sus colaboraciones con diversas ONGs, PERCENTIL ha donado 1.600.000 prendas desde el 2 de julio de 2012.

Annex 12c- Interview to Lourdes Ferrer from Percentil

In order to maintain the authenticity of what Lourdes Ferrer wrote to answer to this interview's questions, the content has been maintained in the original language in which it was performed: Spanish.

Entrevista Percentil

La Comisión Brundtland de la ONU definió en 1987 el concepto de sostenibilidad como "Suplir las necesidades del presente sin poner en riesgo el que las generaciones futuras puedan satisfacer sus propias necesidades". También hay bastantes publicaciones que identifican tres dimensiones principales en el concepto de sostenibilidad: la económica, la ecológica y la social.

1. ¿Es Percentil una empresa sostenible en esas tres dimensiones? ¿De qué maneras?

ECONOMICO: Estamos en camino de serlo. Ya que nuestra línea de producto está pensada para todos los públicos (compramos y vendemos ropa de marcas de todas las gamas de precio), nuestro precio medio de venta no es alto y nuestros márgenes son ajustados. Solo con un mayor volumen de negocio lograremos esa sostenibilidad económica.

ECOLOGICO: Lo somos porque damos una segunda vida a toneladas de ropa que todavía están en perfecto estado. Estamos cambiando la mentalidad del agente respecto a su forma de consumo y esto hará a la larga que se fabrique menos ropa nueva y, por tanto, se reduzca el impacto medioambiental de su fabricación.

SOCIAL: Lo somos porque ofrecemos un producto de calidad a precios muy bajos, permitiendo así que gente con un nivel adquisitivo bajo pueda acceder a un producto duradero. Además, donamos a distintas ONGs parte de la ropa que no podemos publicar en nuestra Tienda porque no cumple los requisitos que fijamos.

2. Percentil no tiene un modelo de empresa típico del fast fashion al vender ropa de segunda mano o "ropa casi nueva". ¿Se creó la empresa ya con intención de ser sostenible? ¿Se ha ido adaptando sobre la marcha?

Creamos la empresa para cubrir una necesidad, que es la de que a la gente le sobraba ropa en su casa y no sabía qué hacer con ella. Darle una segunda vida resulta ser una consecuencia lógica de la resolución de ese problema. Es el ejemplo perfecto de un hábito que puede calar en la sociedad sin necesidad de que esta tenga una gran conciencia medioambiental.

3. ¿Cuáles son los obstáculos que puede encontrar una empresa como Percentil para ser sostenible en las dimensiones económica, ecológica y social? ¿Es difícil ser sostenible?

En la dimensión económica, contestado arriba. En la ecológica existen obstáculos relacionados con la reciclabilidad de la ropa, ya que aquellas prendas que recibimos y no podemos publicar en nuestra Tienda, no siempre pueden ser recicladas si finalmente no se usan. Hay un reto tecnológico importante en la mejora de técnicas de reciclado de tejidos.

Según Kirchherr, J., Reike, D., & Hekkert, M., (2017) "*Una economía circular describe un sistema económico que se basa en modelos de negocio que reemplazan el concepto de 'fin de vida útil' por reducir, reutilizar, reciclar y recuperar materiales en los procesos de producción / distribución y consumo […] que implica crear calidad ambiental, prosperidad económica y equidad social, en beneficio de las generaciones actuales y futuras*".

Además, la fundación ICO explica que "*La migración hacia un modelo de economía circular pasa por abandonar el modelo lineal, basado en la extracción y utilización de recursos naturales como principales inputs de los procesos productivos, dando lugar a productos que, una vez alcanzado el final de su vida útil, pasan a formar parte de lo que comúnmente denominamos "basura".*"

4. ¿De qué maneras aplica Percentil este modelo circular? ¿En qué fases de la cadena de valor?

El centro de nuestro modelo de negocio está basado en la circularidad, pero además aplicamos esta filosofía a nuestros procesos por ejemplo al reutilizar las bolsas y perchas con las que almacenamos la ropa que vendemos. Cuando una prenda se vende, su bolsa o percha vuelve a entrar en el circuito para almacenar otra prenda que acaba de llegar.

5. ¿Qué planes tiene Percentil en el futuro respecto a la sostenibilidad tanto a nivel ecológico como a nivel social?

Queremos seguir mejorando a estos niveles, colaborando con distintas ONGs para crear un mayor impacto y ofreciendo los residuos que generamos para la producción de otros objetos que puedan ser útiles. Siempre se puede mejorar.

Annex 12d- Press Release June 2020

PERCENTIL vende 100.000 prendas de segunda mano durante el confinamiento

- PERCENTIL, el mayor e-commerce de ropa y accesorios de segunda mano de Europa, ha podido comprobar de primera mano que la gente ha elegido una forma de consumo más consciente durante este periodo de confinamiento.

- A pesar de que ha recibido muy poca ropa para poder publicar en su plataforma durante estos meses, las ventas han aguantado mucho mejor de lo esperado y esto se debe a dos motivos: el boom del ecommerce y el aumento de la conciencia medioambiental del consumidor.

Madrid, 23 de junio 2020

PERCENTIL, e-commerce pionero en la venta de moda de segunda mano en España, ha sabido mantener sus operaciones a flote durante esta crisis a pesar de haber visto cortado el abastecimiento de ropa, habiendo vendido el 60% del stock en tienda. Esto ha permitido no solo que el proyecto siga vivo una vez superada esta, sino que miles de personas hayan descubierto esta nueva forma de comprar que está poniendo en entredicho la necesidad de comprar ropa nueva de forma masiva.

Según el informe "A New Textiles Economy" de la Fundación Ellen McArthur "el número de veces que una prenda es utilizada ha caído un 36% desde 2004". Esto significa que cada vez generamos más residuos y sin embargo no tenemos una forma fácil de deshacernos de ellos.

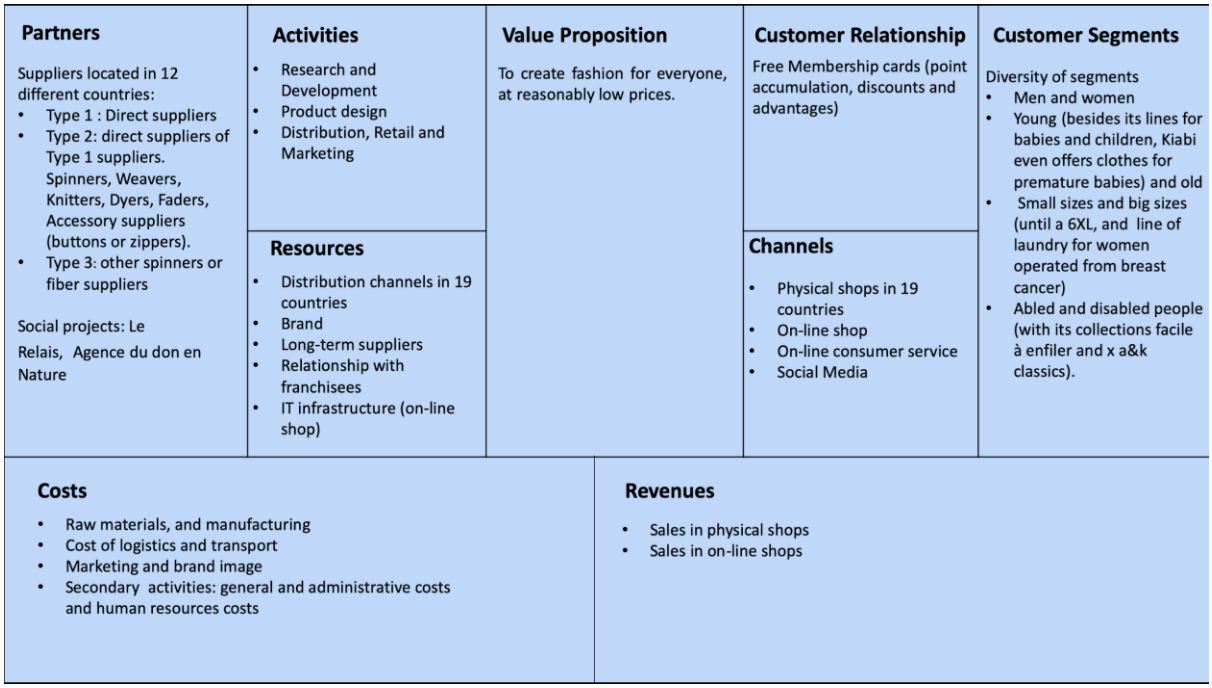
PERCENTIL ha sido la solución para muchas personas que durante estos meses encerrados en casa han optado por observar su armario de una manera autocrítica y constructiva.

Asimismo, mucha gente que no se atrevía a comprar ropa por internet, se ha lanzado a hacerlo en la tienda de PERCENTIL llevándose con ello una triple sorpresa: comprar online es seguro, rápido y también puede ser SOSTENIBLE.

Annex 13- Triple Layer Business Model Canvas for Kiabi and Percentil

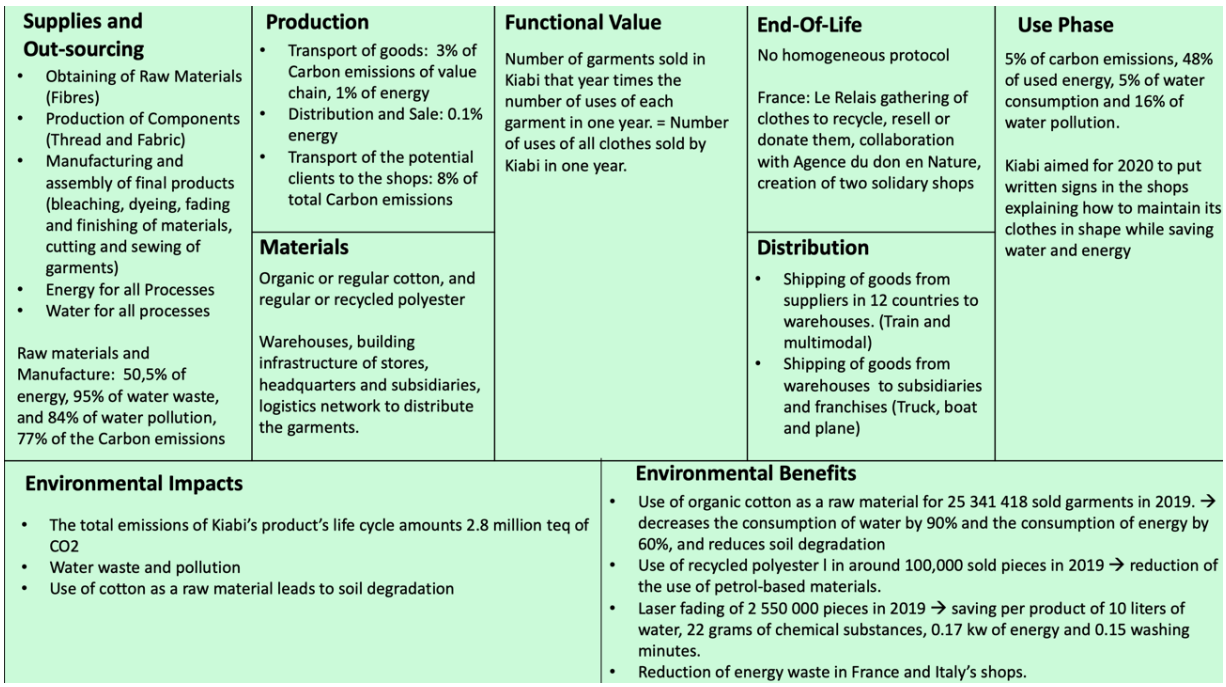
Figure A13.1- Triple Layer Business Model Canvas for Kiabi

Economic layer of the Triple Layer Business Model Canvas for Kiabi



Source: own elaboration

Environmental layer of the Triple Layer Business Model Canvas for Kiabi



Source: own elaboration

Social layer of the Triple Layer Business Model Canvas for Kiabi

<table>
<tr>
<td>Local Communities
• Long-lasting relationship with ethical suppliers : ethical rules and codes, selection process of suppliers and annual auditing
• Dreams School Project in Bangladesh
• Kiabi Foundation in buyer's countries</td>
<td>Governance
• Kiabi is a privately owned company
• In 12 of the 19 countries with shops, there are franchises.
• Financial and extra-financial transparency

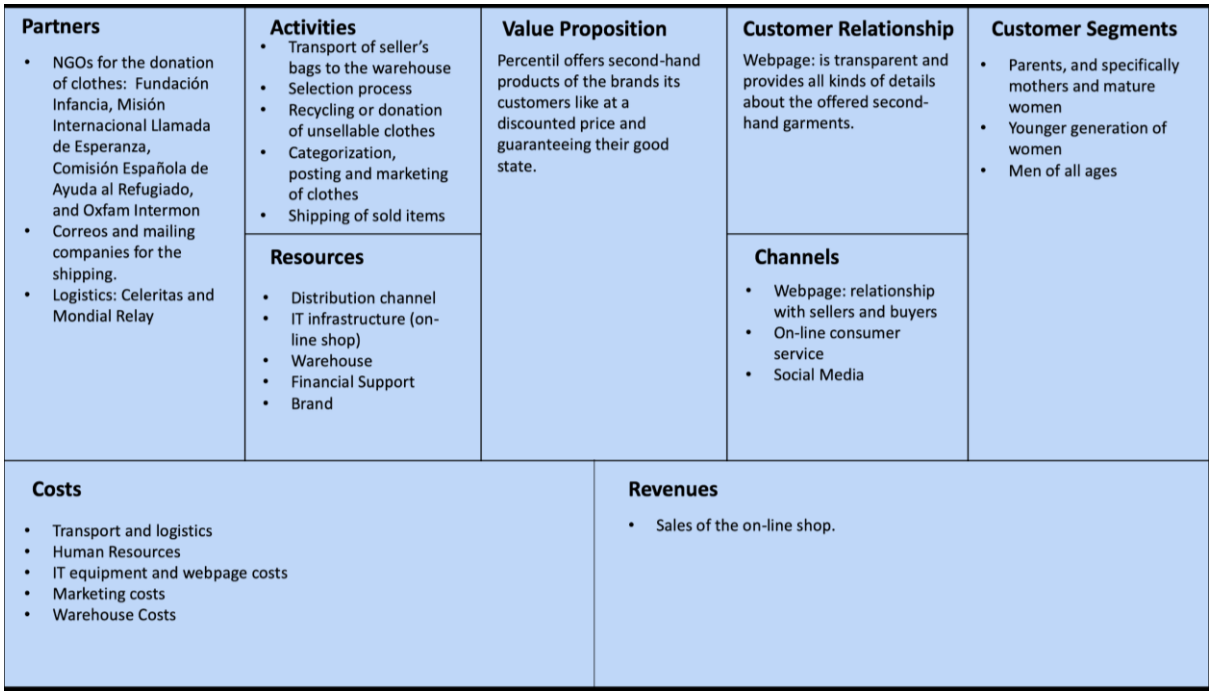
Employees
• 10,053 employees in 2019
• Different ages, genders, cultural origins and health (Handi-Kap policy)
• Education, fair salaries, and self-development
• Gender parity (but not in management)
• 65% of employees are shareholders</td>
<td>Social Value
• Kiabi's products are inclusive, and try to provide clothes of reasonable quality to any type of client regardless of their gender, age, size or ability.
• Development of long-term relations with its suppliers in order to increase value creation for both parties.</td>
<td>Societal Culture
• Culture of happiness at work, and happiness of customers.
• Culture of responsibility through the development of sustainable practices in environmental and social terms.

Scale of Outreach
• Kiabi has 508 shops in 19 countries, and in 12 of them it appears under the form of a franchise.
• Kiabi's suppliers are present in 12 countries, excluding European suppliers</td>
<td>End-User
• All customers, regardless of their gender, age, size or ability are able to find clothes that fit and look well.
• Buyers can choose products that are produced with more sustainable materials and processes.
• The products sold by Kiabi have a good quality-price rate, which can be attractive to end-users.</td>
</tr>
<tr>
<td colspan="3">Social Impacts
• Lack of gender parity in Kiabi's management
• Not all Type 2 and Type 3 suppliers are audited. For Type 2 suppliers, only the factories of the ones that are nominated are audited, and none of the Type 3 suppliers are audited.</td>
<td colspan="2">Social Benefits
• Creation of employment in supplier's and buyer's countries
• Strict policies for the fair treatment of suppliers and aim to build long-lasting relationships with them.
• Respect of Human Rights in all of its value chain, including the majority of its suppliers
• Kiabi also acts complying with all regulations</td>
</tr>
</table>

Source: own elaboration

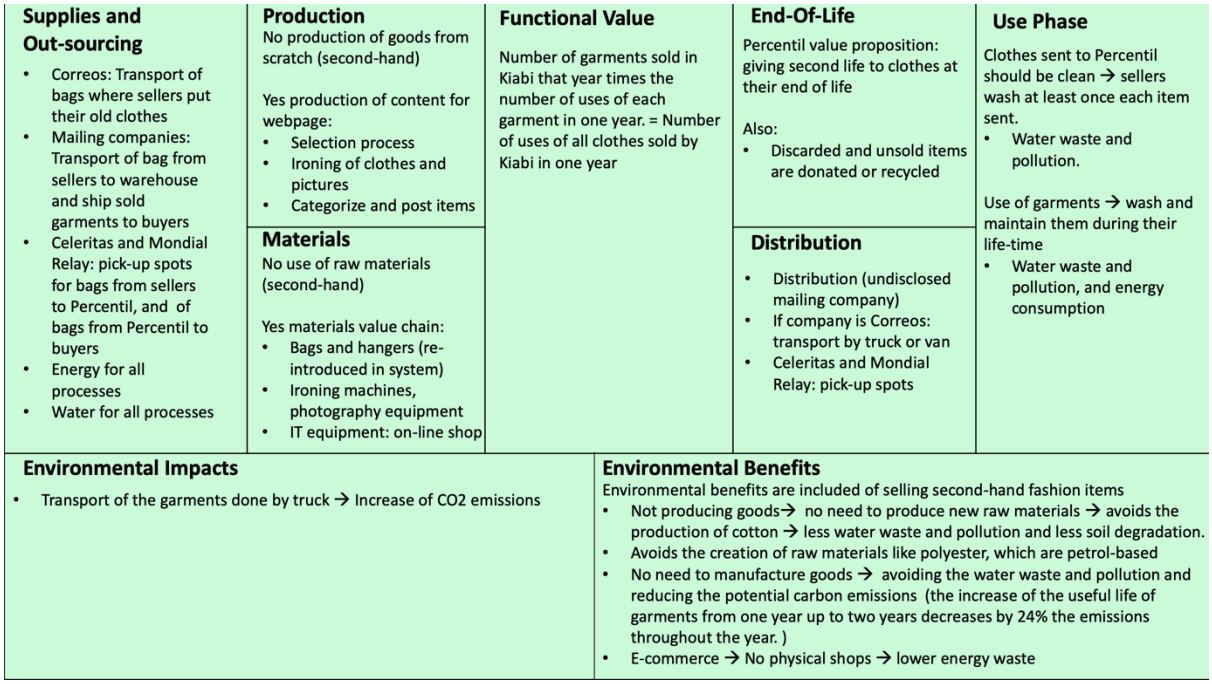
Figure A13.2- Triple Layer Business Model Canvas for Kiabi

Economic layer of the Triple Layer Business Model Canvas for Percentil



Source: own elaboration

Environmental layer of the Triple Layer Business Model Canvas for Percentil



Source: own elaboration

Social layer of the Triple Layer Business Model Canvas for Percentil

<table>
<tr>
<td>Local Communities
Percentil benefits the Spanish, French and German communities by providing second-hand fashion in a good state at discounted prices
Percentil collaborates with different NGOs → benefit people in need from such communities.</td>
<td>Governance
Percentil is a privately owned company
Percentil aims to engage its stakeholders (employees, the users of the platform that donate their clothes, and the users who buy them) to create value.
Employees
50 employees in the present
Majority of women (in 2018 there were 32 women and 11 men)
Out of 6 managers, 2 of the are women → gender parity
Promotion of female entrepreneurship and work/life balance</td>
<td>Social Value
Network thanks to which users can declutter their wardrobe in an ethical and sustainable way, at the same time earning some money, and where they can also buy clothes from their favourite brands at reduced prices, and giving them a second life.</td>
<td>Societal Culture
Culture of circularity
Culture of environmental responsibility
Culture of solidarity, by donating some of the clothes to NGOs
Scale of Outreach
Percentil ships to and receives its garments from France, and Germany, besides Spain (specific websites for each country)
Soon expansion of business to the Netherlands.</td>
<td>End-User
In Percentil, end users find discounted second-hand clothes from their preferred brands.
There is a great variety of clothing sizes and styles on the web-site, which makes it easy for them to find pieces they will like.
Great service for parents, because, as kids grow very fast, they need new clothes in short intervals of time.
Percentil offers a sustainable way of buying clothes.</td>
</tr>
<tr>
<td colspan="3">Social Impacts
Sellers can be discouraged if they send Percentil clothes that they perceive to be in good shape, but that do not pass the selection process of the clothes.
Percentil does not provide enough information on its website or press releases about the environmental impact of the whole company, including negative aspects of it.</td>
<td colspan="3">Social Benefits
Percentil collaborates with NGOs, providing second-hand clothes to people in need.
Close relation with its website's users, and gives the sellers the opportunity to earn money thanks to their old clothes.
Allowing buyers with adjusted budgets to buy clothes.
Aim to create a new social habit of selling second-hand clothes, which is good for the environment too.</td>
</tr>
</table>

Source: own elaboration