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A view of Sustainable: Refashioning clothing's environmental impact

A cooperation between Portugal and Finland

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Thesis abstract

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Fashion is one of the industries with the most negative environmental and social impact, so it is imperative to change the paradigm towards sustainability.

The objective of this dissertation is to understand how sustainability differs from Finland to Portugal and find linking points where exporting practices from one country to another could benefit the fashion in a bigger scope.

This thesis can be divided into theoretical framework and empirical research. The empirical research focuses on analyzing the current conditions of the Finland and Portugal fashion market with a specific focus on sustainability. All the data in this thesis consists of secondary data.

The research reveals that the knowledge and concern/interest regarding sustainable fashion has a positive influence on sustainable behaviour and that, in turn, this influences the intention to buy sustainable fashion.

These results are important for both theory and practice and can be relevant for researchers for industries, experiential marketing, logistics and also for companies, governments, designers and start-ups in Finland and Portugal.

¹ Keywords: Sustainable Fashion, Circular Economy, Conscious Fashion, Environment, Future of Sustainable Fashion, Ethics, Portugal, Finland

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Terms and Abbreviations

WCED	World Commission on Environment and Development
NGO's	Non-Governmental Organizations
RDD	Research Design Development
SDG	Sustainable Development Goals
WGSN	Worth Global Style Network
CE	Circular Economy
EMF	Ellen MacArthur Foundation
APA	Portuguese Environment Agency
LCE	Life Cycle Engineering
UNEP	United Nations Environment Programme
LCM	Life Cycle Management
CIRP	International Academy of Production Engineering
ECA	European Clothing Action

1 INTRODUCTION

Sustainable development, discussed at the United Nations Conference on Environment and Development in Rio 92, had as its primary objective to address global environmental problems in order to develop a model less consumerist and more favourable to environmental balance. As a result of the debate in 1992, it was determined that the sphere of three pillars of sustainability, which consists of environmental protection, economic development and social development, need to interact with each other in order to have a sustainable global economy (UDESC, 2018). In the year 2016, according to the United Nations (2015), all countries in the world must implement the 17 Sustainable Development Goals (SDGs) by 2030, which consist of reducing poverty, promoting prosperity and well-being for all, protecting the environment, and addressing climate change.

In order to develop a less consumerist model, Finnish companies and industries are increasingly adopting sustainable actions in their businesses. In parallel, the concern with the environment also modifies citizens' consumption, that is, they search for products and services that are in accordance with sustainable issues, generating a conscious consumption (Sebrae, 2019), in which consumers pay attention to different aspects of production, such as: the company's socio-environmental responsibility, waste, ecological design that is related to the disposal of waste among other issues (Sebrae, 2019).

Therefore, sustainability also implies in the fashion market, advocating the reduction of pollutants in the production of clothing, shoes and accessories and consequently, causing the least possible impact on the environment and social and economic prosperity (Sebrae, 2019). For Fletcher and Groose (2011, p.5), sustainable fashion "provides meaningful jobs, greater multiplicity of ways to earn a living, restitution of local production, a safer world, and lives worth living."

Sustainability in fashion integrates different terminologies, such as: Eco-Fashion, Ethical Fashion, Slow Fashion, and More Sustainable Fashion. Eco-Fashion emphasizes the reduction of environmental impact, through products developed by methods less harmful to the environment; Ethical Fashion is concerned both with the environment and consumers and the working conditions of those involved in the process; Slow Fashion is based on the

concept of greater perception of quality, design and their impacts on resource flows, workers, communities and ecosystems (Fletcher; Grose, 2011); More Sustainable Fashion encompasses all of the above terminologies, providing good social and environmental practices, including reduction in production and consumption (Salcedo, 2014).

To make the fashion industry more accessible to all, Worth Global Style Network (WGSN - trend company), cites five eco-conscious pillars that should be considered: "Think about the afterlife of products; Don't be limited to your industry; Promote transparency; Do your part to make sustainability accessible; And expand your product line to a more conscious audience."

Thus, one can rethink how products can be reused and/or recycled; how to spread the sustainability message to everyone; how to gain consumer trust; team up with retailers and/or streaming services to promote messaging; and expand the sustainable product line to meet the growing demand of the production chain (WGSN, 2019).

From this information, it has as objective of this work, to understand the fashion strategies to propose a sustainable clothing venture focused on start-up scene in Finland and how this model can be exported and find a collaborative network in Portugal.

1.1 Purpose of the research

Fashion is one of the largest industries in the world, the author of this thesis pretends to identify and use the resources of the last decade in order to reshape and redirect the fashion industry in general based on received information through interviews, observation and publications.

1.2 Research problem and research questions

In order to achieve the objectives proposed in this work, the central question of research is placed as follows:

- How can we make fashion in general more sustainable?

- What is the role of digitalization and reselling in helping large companies achieve more sustainable practices?
- And how can the fashion industry benefit in the future with circular design?
- Beyond this central objective, were considered the following specific objectives:
- To analyze the behavior of consumers regarding sustainability, in general, and fashion in particular.
- Understand consumers' perceptions and knowledge of sustainable fashion and its importance.
- Understand what factors influence sustainable behavior in the face of fashion and how it influences sustainable fashion consumption.

The focus of this thesis is on sustainable strategies: how they work currently, what opportunities are created by startups that makes them move towards a more sustainable future.

1.3 Scope and limitations of the research

1.4 Background

From 2019 to 2020, the author of this thesis participated in GrowUp students at SeAMK, with an innovative idea aiming to solve the sustainable/recycling problems within the fashion system enabling the circular economy, this idea gained an honorary mention within the competition and the author decided to connect the entrepreneurial mindset with theoretical studies.

1.5 Research Methods

This thesis is structured systematically by the author to identify the research topic and answer to research questions.

The process starts by explaining the most important concepts, fast fashion, sustainability and mass production and the problems with sustainability. The following chapter is devoted to current sustainability situation in the fast fashion industry; what issues arise from fast fashion companies' operations, how companies execute sustainability in their operations and how consumer behaviour affects the industry.

After explaining the key words and examining present execution of sustainability in the industry becomes future of sustainability in the industry.

The last chapter is a SWOT analysis about the advantages of circular economy and sustainable fashion from Finland to Portugal.

2 RESEARCH METHODS

2.1 Data Acquisition Process

Due to the characteristics of the subject that is intended to be investigated, it was chosen to work with non-interventionist research with a qualitative base. This is because there will be no action on the objects studied, but rather an analysis of their characteristics.

It is noteworthy that developing a methodology for social science research goes far beyond simply gathering a series of methods, or techniques, there must be the necessary reflection for an overall conception (Quivy & Campenhoudt, 2005). It can be said that the research is qualitative based, but there were moments when the data were treated in a quantitative way, as is the case of the documental analysis and the questionnaires. From the point of view of its objectives, it is exploratory, having as its purpose to provide more information about the subject investigated. This was done through bibliographic survey and data collection. It was chosen to work with qualitative research because the aim of the investigation was to understand the reality of teaching in relation to sustainability in the textile sector.

The preparatory phase consisted of a literature review related to the three major themes of the research, which are sustainability, the fashion industry, the consumer behavior, the new trends like digitalization, and their intersections. Thus, the literature review explores sustainability and its different pillars, how sustainability can be incorporated into the business world and how the refashioning can improve the future of the sustainable fashion

The second phase of the research was the exploratory phase of the research is the exploratory phase. literature review, with two other methods - exploratory interviews and document analysis. With this we obtained the current stage of the fashion industry.

The last phase of the research is a SWOT analysis, a strategic analytical tool for assessing strengths and weaknesses of a business.

2.2 Data Analysis

The literature review served to better understand the theoretical context in which the research is set. The three major areas studied were sustainability, in the search for understanding how it can be an answer to environmental, social and economic crises. Subsequently, the scope of Sustainability was entered and the change in its role in society over the years was analyzed, as it has encouraged consumption and today there is a search for a more conscious industry that can solve society's problems.

3 LITERATURE REVIEW

3.1 Sustainability

For a better understanding of the concept of sustainability and development sustainability, it is necessary to understand how it came about and in what context. Since the Revolution Industrial, society has developed using natural resources and slave labor, and children aiming at profit. It was observed the increase in the production of consumer goods, the need for more manpower, and the enrichment of societies.

For industrial society, there was no concern about environmental impacts and social practices that these practices caused. Over the last two centuries, the Revolution Industrial would end up having a great impact on the planet, driving a greater production capacity and the consequent increase in consumption, greater degradation environmental (Oenning 2012).

Since then, there has been a progression of industrial development, which would reach high levels of production, at the same time, people's quality of life does not accompany the same pace. Despite the benefits provided by the industrial revolution, this one also brings damage.

"Of the damage caused we need to consider the degradation of the natural environment, the loss of biodiversity, climate change, the increase in the greenhouse effect, acid rain, soil deterioration, waste and frivolous use of natural resources, excessive growth of waste and, in particular, hunger and misery" (Berlin 2012).

Industrial development ultimately has serious consequences for the environment and for society, which is beginning to become concerned with the issue. The second half of the 20th century is marked by concern about the future of the environment, caused by the constant transformations that the world was going through. If in one hand development has raised people's life expectancy, there is also an increase in man's destructive capacity. At the same time, an ever-widening abyss between poor and rich countries. The 1960s and 1980s are marked by a series of environmental disasters, a example of that we lived the Minamata Bay in Japan, the accidents at the Chernobyl nuclear power plant in Ukraine, and in Bhopal, India, contributed to raising Europe's awareness of environmental problems (Bellen 2005).

Bellen argues that the "concept of sustainable development is specifically about a new way for society to relate to its environment in a way that ensures its own continuity and that of its external environment" (Bellen, 2005, 22). Sachs further refers to the "harmonization of social, environmental, and economic objectives" (Sachs, 2002, 54). Diniz and Bermann argue that in the concept of sustainable development

"We have the need to rethink economic development in a new way, considering equality between generations. Until then, economic development had a somewhat narrower perspective and usually considered the fundamental determinants of economic growth without considering the environment" (Diniz & Bermann, 2012, 323).

Due to the environmental crisis and the unbridled consumerism that affects the world today, there is a growing global concern, and the issue of sustainability becomes of interest to Governments, Organizations and Civil Society in general that realize the need for urgent responses from society to face this problem.

"In the face of growing global concern over today's environmental crisis and consumerism, governments, public and private organizations, universities, societies and designers are beginning to familiarize themselves with the concept of Sustainable Development" (Marcos & Schulte, 2009, p. 58).

Thus, sustainability must be addressed by all spheres, including fashion. But when trying to relate sustainability and fashion, the existing dichotomy between the two approaches is observed, since the fashion system is essentially based on ephemerality and encouraging consumption, causing various evils to the environment, either through the use of natural resources or even because of the use of slave labor in the production of garments.

However, it is exactly because of the damage caused by the fashion industry that there is a need to think about sustainable fashion, which takes into account the principles of sustainable development, thinking about environmental and social issues.

In fact, we found that fashion may in fact adopt sustainability practices, creating products that demonstrate its awareness of the social and environmental issues that present themselves today on our planet, and can at the same time express the anxieties and desires of those who consume it. After all, fashion not only mirrors us - it expresses us" (Berlin, 2012, p.13).

Incorporating sustainability is a challenge for fashion, but actions that think about an environmentally sustainable development are already beginning to emerge, conjuring up ecologically correct pieces. In this context, the fashion designer has to act with responsibility, because the role he plays works as a link between industry, commerce, and society. "It is increasingly necessary the designer's intervention to achieve a better relationship product - environment - society, and this initially can be achieved with the formation of a culture of designers aware of social problems and environmental impacts (Pazmino, 2007, p. 02).

3.2 Problems with the Fashion Industry

According to the World Resource Institute (2021), the fashion industry produces per person per year a total of 20 pieces, which means 383 million pieces produced per year. One can see that this demand is generated mainly by the fast fashion segment, which is constantly growing, since its manufacture, use, and disposal happen quickly, emitting 400% more carbon than a production of "normal" clothes. Being the second most polluting sector, the fashion industry generates a high environmental impact, such as pollution and depletion of natural resources. According to data from BBC (2017), polyester (synthetic fiber) which is the most used fabric in the textile industry, spends 70 million barrels of oil to be produced and takes about 200 years to decompose; viscose causes the cutting down of 70 million trees; and cotton negatively impacts the soil and water due to the toxic substances used to produce it and the amount of water (2,700 liters). Thus, in this scenario, it is necessary to explore new viabilities in the sector.

In relation to the fashion market, together with the new trends and consumer habits, there are opportunities in the sector. With the current demand and new consumer practices in the 21st century, the search for sustainable products and services, which, consequently, harm the environment in smaller proportions, causes divergent strategies adopted by companies. According to the article "Companies adopt sustainable practices" published in Valor, sustainable actions gain more and more strength in the textile industry (Valor, 2018).

Thus, the sustainable market can be on the rise, and thus, there is a change in the way citizens relate to the environment in different issues, also implying the clothing sector. However, based on the book "Fashion & Sustainability" by Kate Fletcher & Lynda Grose

published in 2011, bringing together sustainability, the fashion industry and the growth-based economic system is a big challenge as it encompasses both the credentials of garments, production systems and business models.

The changes that occur in society are reflected in fashion, so the environmental and social discourse moves out of the political sphere and into the discourse of production and consumption. In this way, there is an increase in relation to issues of need for conscious, inclusive, and sustainable consumption, prevailing the consumer's model of choice as an individual in the environmental and social aspects as opposed to consumerism.

The consumption of sustainable fashion becomes more evident in the beginning of the 21st century, resulting from more selective consumers when buying and concerned with the origin and the way the product is manufactured.

The fashion industry emits about the same quantity of greenhouse gases per year as the entire economies of France, Germany, and the United Kingdom combined. By 2030, it will need to cut its emissions by about half else it will exceed the 1.5 degree pathway to mitigate climate change, set out by the Intergovernmental Panel on Climate Change and ratified in the 2015 Paris agreement. (Mckinsey,2020)

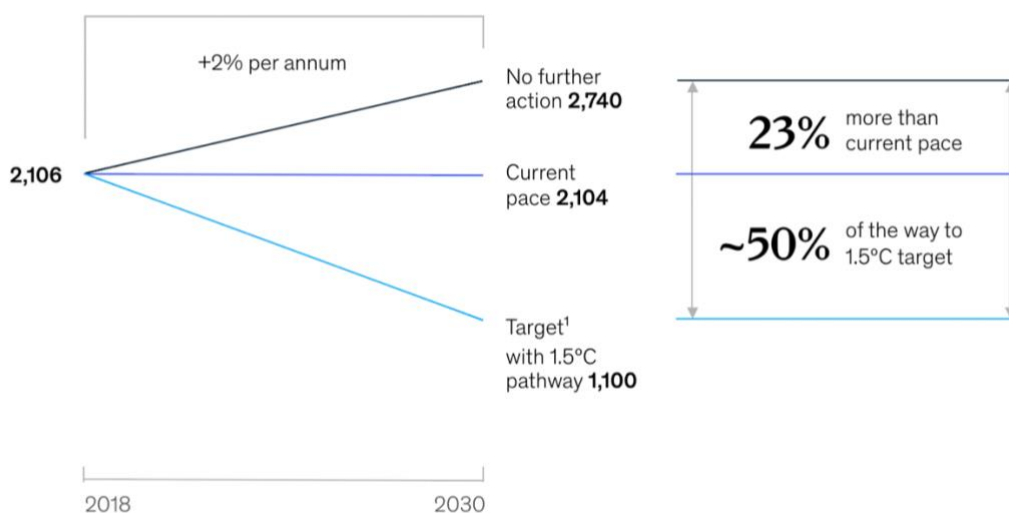


Figure 1 Emissions abatement assuming the industry decarbonization continues at current pace, millions tons of CO₂ equivalent

3.3 The Fast Fashion Phenomenon

Fashion has simply accelerated this mechanism (Abrahamson, 2011). The historical Merriam-Webster dictionary defines fast fashion as "an approach to the design, creation, and sale of clothing that emphasizes the need to make fashion trends available to consumers quickly and economically". This has led to a revolution of the fashion system, first eliminating the so-called seasons: autumn-winter and spring-summer.

The empirical fact is conclusive and what has been stated: if you cross the threshold of stores (or e-commerce) such as Zara, H & M, Mango, Stradivarius customers can see how the garments in fact change almost weekly, without counting the capsule collection, special collections and festive editions. It has been estimated that an average of fifty-two micro-collections are produced in a year, and for this reason experts are currently converging on a new concept: "super-fast fashion".

In fact, if originally fast fashion arose to bring the garments and collections admired on the catwalks of fashion weeks to ready-to-wear stores in a very short time, today, that the pace is even faster, it seems that fast fashion, rather than interpreting trends, even anticipates them, thanks to the help of big data analysis and technologies such as Artificial Intelligence, which combines the desires of consumers with the future proposals of Haute Couture (Inside Marketing, 2020).

What has been said so far inevitably requires an ad hoc, rapid and low-cost production chain. However, fast fashion has a merit, the so-called "democratization of luxury", in fact, today it is possible to be fashionable with a budget accessible to everyone. A striking example is certainly Zara, which offers garments inspired by the shapes, fabrics and finishes of haute couture collections, making high fashion available to the masses. We talk about democratization because fast fashion has undermined the effect that the sociologist Simmel had called trickle-down effect, which provided that the wealthy classes were to determine customs and habits that then, by emulation, spread over time among the masses. Today this is no longer the case, as emulated versions of high fashion garments are on the market almost simultaneously with their presentation on the catwalks.

The factors that have made it possible for brands to produce so quickly have undoubtedly been the delocalization and contracting out of certain production phases to third parties, thanks to the globalization that has taken place since the early 1980s. However, speeding up production processes has had, and still has, a considerable cost: control processes are less accurate, fabrics are less durable and textile workers do not see proper recognition for their work. In fact, the use of medium-low quality raw materials allows low cost clothing chains to maintain low prices; it has been estimated that on average over 60% of garments are made of petrochemicals and plastic polymers such as nylon, viscose, polyester and that even when garments are declared to be made of cotton only 1% of the time they are organic cotton. Undoubtedly, the fast fashion system is one of the culprits of the current ecological crisis, which affects both the environment and human health. In fact, this system requires that clothes are designed to be cheap, quick to produce, in order to be distributed, sold and consumed in ever greater quantities and in ever shorter times. But, such an exacerbated increase in consumption has inevitable consequences: both on the flow of waste/textile waste and on the environmental impact of production, with greater emissions of pollutants and greenhouse gases. However, why, despite the negative reputation of fast fashion, do consumers continue to buy this type of garment? According to sociologists, in fact, instant fashion has completely changed consumer habits and expectations, especially price, towards an item of clothing. According to research conducted by the World Bank, today the average consumer buys at least twice as many clothes as at the beginning of the 2000s and their average use has reduced by almost 40%, as can be seen in the graph below.

3.4 The Real Cost of Fashion

Although for years there has been talk of the high environmental impact of the fashion industry, the sector is still growing, at least from the analysis available pre Covid-19. It is therefore interesting to identify environmental impacts at critical stages of the textile and fashion value chain, from production to consumption, focusing on water use, chemical pollution, CO₂ emissions, and textile waste. (Niinimäki et al., 2020). The environmental impact that the fashion industry is causing in recent years has reached a critical stage. In fact, it has been estimated that this industry produces between 8-10% of global CO₂ emissions, or between 4-5 billion tons per year (United Nations Climate Change, 2018). Moreover, contrary to expectations, the Fashion Industry is the largest consumer of water

with 79 trillion used per year (Global Fashion Agenda & The Boston Consulting Group, 2017), contributing to about 35% of ocean pollution caused by microplastics and producing a huge amount of textile waste (more than 92 million tons per year) many of which is dumped in landfills or burned, even those not sold and therefore new (Dahlbo et al., 2017), (Ellen MacArthur Foundation, 2017). The growing environmental impact (and resulting awareness) can be attributed to the substantial increase in clothing consumption, and thus the increase in textile production (Figure 2). In fact, global per capita production has increased from 5.9 kg to 13 kg per year over the period from 1975 to 2018 (Peters, et al., 2019).

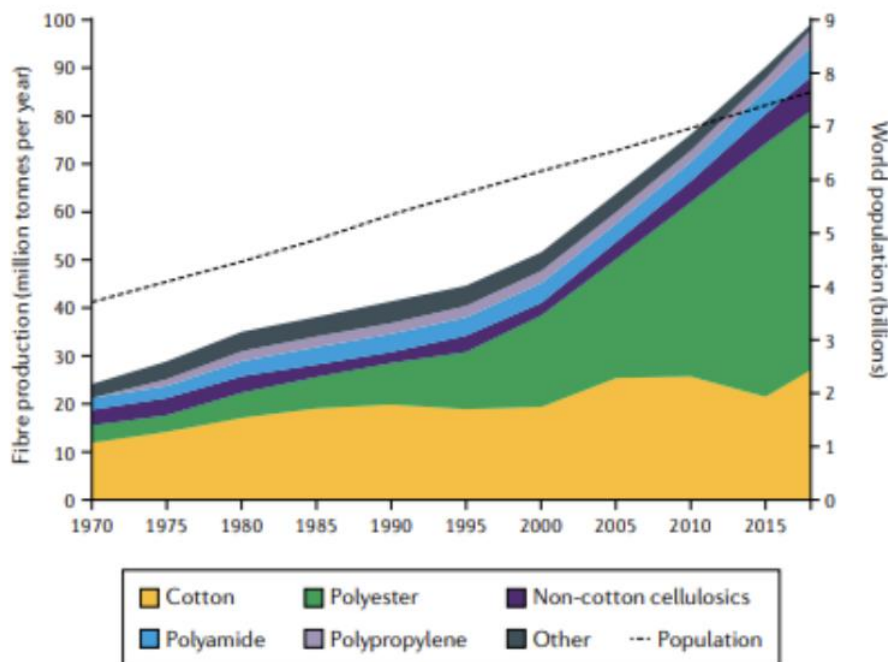


Figure 2 Growth in global population and textile production by fiber type (1970-2015)

Similarly, current clothing consumption is estimated to be about 62 million tons per year and will reach 102 million tons by 2030 (Global Fashion Agenda & The Boston Consulting Group, 2017). So, fashion brands today are producing almost twice as much clothing as they did in the year 2000 (Remy. N., Speelman. E. & Swartz, S. Style., 2016). The main reason for the drastic increase in textile production and therefore clothing consumption has been the emergence of the fast fashion model, a business model, as seen, based on offering

consumers frequent novelties at low prices and always in the latest fashion (CRC, Taylor & Francis, 2015), (Routledge, 2018).

The fast fashion model relies on recurring and impulsive purchases, which instill a sense of urgency in the buyer, who is aware that if he or she does not buy the good today, he or she risks being out of stock the following week.

The success of this model can be traced back to another phenomenon that has characterized the previous decade: the spread of the internet and online shopping, which have contributed greatly to its success, as evidenced by its sustained growth and better performance than traditional fashion retailers. Online players are, in fact, more agile and quicker in delivering new products with an increasingly rapid frequency.

Growing consumption and increasing efficiency in the production of fashion items have led to a large decrease in prices (Remy et al., 2016). For example, although the number of items owned has increased, the average expenditure per person on clothing and footwear in Europe and the United Kingdom has decreased by about 30% since the 1950s. (Sajn, N., 2019) (Jackson, T. & Shaw, 2008). The low price of items has further amplified the phenomenon of buying more and more products and using them less frequently, which has facilitated the expansion of the fast fashion business model.

Currently, in the United States, an average consumer buys at least one fashion item every 5.5 days (Ellen MacArthur Foundation, 2017) while in Europe, a 40% increase in clothing purchases was observed over the period 1996-2012 (European Clothing Action Plan, 2018). The obvious consequence is that every year more and more clothing is purchased by people, in particular, it has been estimated that: in Italy, on average, each person buys 14.5 kg of new clothing, in Germany 16.7 kg, in Great Britain 26.7 kg and approximately between 13 kg and 16 kg in Denmark, Sweden, Norway and Finland (Maldini, et al., 2017) (Tojo, et al., 2012) (Palm, et al., 2014).

The average time of use of clothing has consequently decreased by 36% from the time of use in 2005 (Ellen MacArthur Foundation, 2017) suggesting rapid disposal to make room for new impulse purchases (Petter, O., 2019) (WRAP, 2017). These examples only refer to developed economies, however, increasing development and population growth in

emerging markets has resulted in increased consumption of fashion items and imitation of Western tastes in developing economies as well. The fast fashion model has therefore reached a global proliferation and given the high volume of items produced and discarded the fashion industry poses a clear environmental threat (EAC, 2019), especially as fast fashion manufacturers and retailers focus on reducing costs, decreasing time to market, and speed of delivery, leaving the focus on the pollution these practices cause on the back burner. Before analyzing in depth the impacts that the fashion industry has on the environment, we want to focus on the analysis of the fashion supply chain on a global level.

The fashion supply chain is characterized by a vertical disintegration and a global dispersion of the various successive phases of the production process; it embraces a wide range of industries from agriculture (for the production of natural fibers) to petrochemicals (for the production of synthetic fabrics), manufacturing, logistics and finally retail.

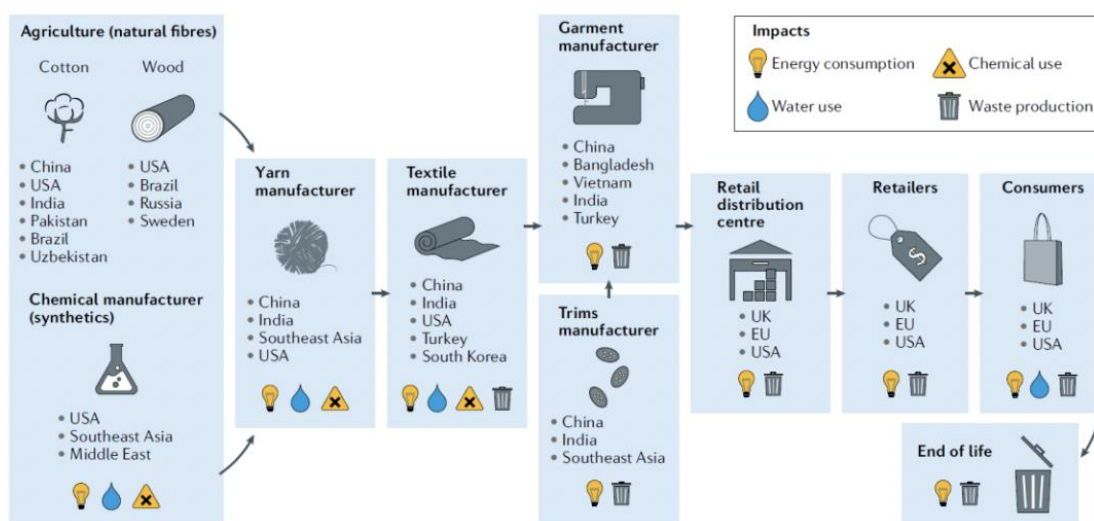


Figure 3 Garment-manufacturing supply chain. (Niinimäki et al.,2020)

The global shift of textile and garment production to low labor cost countries is leading to a substantial decline in production in many developed countries, in some cases to the point of complete extinction, with a simultaneous increase in supply chain complexity and a reduction in transparency through the supply chain. It is often difficult for downstream producers to know where their raw materials came from and how they were processed

(Karaosman, et al., 2018). Therefore, the following is intended to explore the complexity of the fashion supply chain and the many steps it takes to produce a garment. Sixty percent of global fiber production is for the fashion industry, the remaining 40% is used for interior furnishings (curtains, carpets, blankets, etc.) industrial textiles, geotextiles, agrotextiles, hygiene textiles, and still other secondary uses (Muthu, S. S., 2014) (Finnish Textile & Fashion, 2018). The fabric that is mainly produced is polyester (51% of total textile industry production) amounting to 54 million tons in 2018, followed by cotton production (25% of total production) with as much as 26 million tons produced (Figure 3). Polyester dominates global production due to its excellent performance and cost efficiency; it is estimated that its production will increase further as consumers in emerging countries in Asia and Africa are beginning to adopt a Western lifestyle even in the way they dress (McKinsey & Company, 2018).

Yarn production is the next stage after fiber production and includes spinning and sometimes wet processing, such as dyeing. Fabrics are produced from yarns through knitting or weaving; often, this stage requires a great deal of water and energy through wet processes such as bleaching, dyeing and finishing, the direct consequence of which is the production of a great deal of waste. The finished fabrics are transported to garment manufacturers for assembly (cutting and sewing). In addition to fabrics, there are also finishing and finishing elements such as sewing threads, buttons, zippers, linings, labels and lace that are used to make garments; the latter remains a very labor-intensive stage and, as a result, material sourcing decisions are largely determined by labor costs. Often, each stage of garment assembly takes place in different countries, which increases the logistical steps between processes. It is well known that emerging countries generally benefit from a competitive advantage due to lower production costs, particularly labor costs (Perry, et al., 2015); therefore, textile production has inexorably shifted to these countries (Figure 3).

China, for example, dominates the market, exporting \$109.9 billion in textiles and \$158.4 billion in clothes each year (Lu, S., 2018). However, the market share in apparel exports from China is decreasing in recent years as textile exports have grown in other nations such as: Bangladesh, Cambodia, Vietnam, Pakistan, and Indonesia (Textile Exchange, 2018). One consideration is necessary: while manufacturing activities are mainly located in the Global South, design, and branding activities are concentrated in countries in the Global

North, where all the main headquarters can be found. This distance makes it difficult to avoid mistakes during production planning, causing unnecessary pre-consumer waste, still in the assembly phase.

After the production phase, the clothes are shipped in large quantities to the retail distribution centers, which, in turn, will ship them to the retail stores where, finally, the clothes are purchased by the final consumers. Clothes are generally shipped by sea via large container-laden ships, but in recent years, with the advent of online shopping, an increasing amount of clothing is being shipped by air to save time and be more efficient with delivery times. However, air transportation has a substantially greater environmental impact than shipping by sea; in fact, it has been estimated that a 1% increase in air transportation of clothing over shipping would result in an estimated 35% increase in carbon emissions (Quantis, 2018). What's more, this long supply chain, means that garments may have traveled between multiple parts of the world over and over again during the various steps of production to make those raw fibers a ready-to-wear outfit. At the end of their lives, many garments are incinerated or dumped in landfills, rarely shipped to Africa, and currently, only a few are recycled (Sandin, G. & Peters, G., 2018) (Brooks, A. & Simon, D., 2012).

The globalization of the textile industry and fashion system has also caused an uneven distribution of the aforementioned environmental consequences, with developing countries (which are the large producers of textiles and clothing) suffering them for developed countries, the large consumers of these products. Therefore, when the latter import these garments they import not only the products but also the environmental impacts previously described (Figure 4).

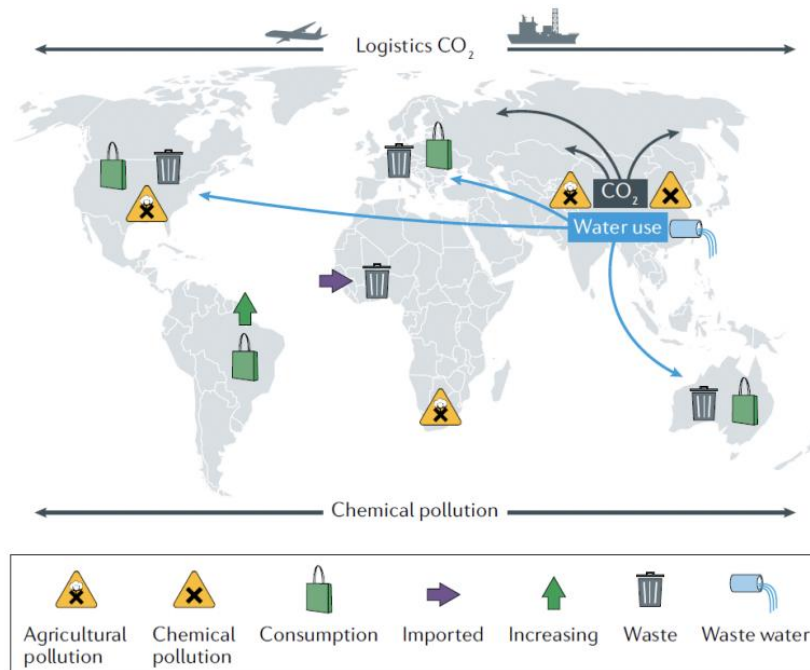


Figure 4 Critical points in textile and garment production (Niinimäki et al.,2020).

In addition, the increasing globalization and fragmentation of the fashion industry has made estimating actual environmental impacts even more complicated, for example due to uncertainty in sourcing and processing raw materials (Karaosman, et al., 2018). Despite these impediments, which must be taken into account, the goal of this chapter is to explore the impacts that the fashion industry has on water resources, on CO₂ emissions, and the negative environmental consequences caused by chemical pollution.

3.5 Towards a new paradigm

The current logic of the fashion business in the fashion industry is based on a constant increase in the quantity produced and sales, with an increasingly rapid time to market and the quality of the products increasingly poor, which consequently leads them to have a much shorter life and therefore be discarded sooner. All this encourages excessive consumption, culminating in the production of a huge amount of waste which, together with other pollutants from production, destroy the Earth's ecosystem. As a result, both the modes of production

and consumption should be changed, the change must come from all those involved, including institutions. It is clear that this change requires a turnaround and must actively include all stakeholders of the fashion system: the industry will have to invest in clean technologies, fashion houses will have to approach a new business model (given the fallacy of fast fashion as it has been perpetrated today), consumers on the other hand will have to commit to changing their buying habits and policymakers will have to create more ethical and sustainable legislation in order to identify rules that have global value.

Three main keys to implement a new fashion model have been identified: circumscribe production, reduce waste and promote circular economy (Niinimäki et al., 2020). Despite the actions taken by the fashion industry to reduce environmental impact, current efforts to improve the sustainable approach are often dwarfed by the continuous increase in consumption (Routledge, 2016). The potential sustainability of fashion is limited by two main factors: the consumer culture of consumers and the consequent increase in production to meet increased demand; the fashion industry is reluctant to change for mainly economic reasons, since this system allows to minimize costs while maximizing profits (UNEP, Earthprint, 2011). In fact, current projections of the fashion industry refer exclusively to a reality of unlimited resource use and permanent economic growth. However, such models of unlimited growth do not take into account the inherent limits that our planet may face, i.e. finite resources, and not unlimited as we would like them to be, and a limit of waste management that, if continued to be generated with the same constant growth, could not be further borne by the environment (UNEP, 2011). What the Fashion Industry should start proposing is less production of higher quality garments and especially with processes that take into consideration the environmental and ethical issues (Allwood et al, 2006).

However, promoting the reduction of consumption in order to incentivize sustainable purchases is a difficult change to achieve, both from the industrial point of view, since entrepreneurs would see at least in the short term a strong reduction in profits but also from the point of view of the final consumer, who would find himself projected into a completely different system that to be accepted would imply a complex and radical change, from the psychological, cultural and social point of view; in short, the "postgrowth fashion" model requires time in order for it to permeate the habits of the masses (Cranston et al, 2019). For example, a major difficulty lies in determining the "fair share" of production, even once the

full extent of a planetary boundary is defined; moreover, it is clear that it would also be problematic to define the individual market shares of each firm or nation all the more so in a fully globalized and liberalized world.

Furthermore, if production were reduced overnight, it would not give time to those developing economies that base most of their GDP on the textile industry to reconvert their work, and so there would be masses of unemployed people and poverty and social discontent would spread further. For example, in Pakistan half of the exports consist of textiles and apparel and the same is true for India as as much as 55% of exports consist of apparel (Anguelov, 2015). Finally, as mentioned earlier, change cannot come from industry alone but must primarily come from the development of a collective consciousness on the part of consumers, who should not view the purchase of clothing as easy and inexpensive entertainment, but should consider the real cost that these actions have (Routledge, 2018).

3.6 SWOT Analysis: Tools

Times are uncertain for businesses around the world. If strategic thinking has always been important, nowadays there are several factors that make it indispensable for any business. The increase in sustainable concerns and the low progression towards that, as well as the economic shifting are just a few examples. It is therefore essential to pay close attention to the analysis of the company in its environment. Basically, a SWOT analysis allows us to do just that. This analysis was developed by Kenneth Andrews and Roland Christensen, two Harvard Business School professors. The term SWOT results from the combination of the initials of the Anglo-Saxon words Strengths, Weaknesses, Opportunities and Threats. (Andrews, K. R., 1980) Thus, SWOT analysis corresponds to the identification by an organization in an integrated manner of the main aspects that characterize its strategic position at a given moment, both internally and externally (how the organization relates to its environment), the synthesis of external and internal analysis. The combination of Strengths and Opportunities create Challenges, Strengths and Threats create Warnings, Weaknesses and Opportunities create Risks, and Weaknesses and Threats create Constraints. These junctions are called Dynamic SWOT. (Carvalho and Cruz Filipe, 2008).



Figure 5 SWOT analysis: strengths (S), weaknesses (W), opportunities (O) and threats (T)

Porter (2004) explains some characteristics that help in the identification of the company's strengths and weaknesses. His description follows in Table 1 below:

Table 1 Strengths and Weaknesses according to Porter

Strong Points	Weak points
<ul style="list-style-type: none"> • Factors that build the mobility barriers that protect the company • Factors that strengthen the firm's bargaining power vis-à-vis buyers and suppliers • Factors that isolate the company from rivalry with other companies 	<ul style="list-style-type: none"> • Factors that weaken the mobility barriers that protect the company • Factors that weaken the company's bargaining power in relation to buyers and suppliers • Factors that expose the company to rivalry from other companies

- Larger scale in relation to the strategic
- strategic group
- Factors allowing lower costs of entry into the
- entry costs in the strategic group than in other
- Strong ability to implement the strategy
- implementation capacity relative to competitors
- Resources and skills enabling the
- company to overcome mobility barriers and penetrate even more interesting strategic groups

- Smaller scale in relation to the strategic group
- Factors causing higher entry cost in the strategic group than in others
- Lower capacity to implement strategy in relation to competitors
- Lack of resources and skills that could allow the company to overcome mobility barriers and penetrate more interesting groups

4 FROM FAST TO CIRCULAR FASHION: THE ECONOMIC PARADIGM FOR A SUSTAINABLE FUTURE

In the last decade, the attention of the scientific world first and then the political-economic one has shifted to the Circular Economy (CE) as an alternative economic paradigm: sustainable in the long term, geographically scalable and adaptable to any sector. The founding pillars of this model are ascribed to the Ellen MacArthur Foundation (EMF), which in 2012 described the CE as intentionally regenerative and based on keeping products and raw materials within closed production cycles so as to preserve their maximum utility and value on an ongoing basis (Bertassini, 2020). The main objective of maximizing resources in use is to minimize waste through highly efficient production processes and the transformation of natural resources at the end of their life into secondary raw materials that can be used in other production processes (Esposito, 2018). To do this, the resource and energy cycles of each production process must be slowed, shortened and/or closed through strategies that design products to last over time, making them suitable for reuse, remanufacturing and recycling (Geissdoerfer, 2017). All while ensuring that the natural environment is constantly and intentionally regenerated (Bocken, 2021). The motto of the EC is therefore encapsulated in the view of the so-called '4Rs' (reduction, reuse, recycling and recovery of raw materials and energy), then expanded with the addition of redesign and remanufacturing strategies. (Aminoff, 2016).

4.1 Circular Economy

Circular Economy can be understood as a proposed economic model that integrates several schools and lines of thought, such as: Industrial Ecology, Life Cycle Engineering, Life Cycle Management, Performance Economics, among others. Industrial Ecology presents, in general, two major axes of action and research that are integrated: one that seeks solutions having ecological phenomena as a model (similar to Biomimetics, which seeks solutions inspired by nature) and another that seeks a balance between natural systems and those built by humans, in order to avoid negative environmental impacts. An international society (International Society for Industrial Ecology) and an international scientific journal (Journal of Industrial Ecology) are the current meeting places and dissemination of this school. Life

Cycle Engineering (LCE) and Life Cycle Management (LCM), the first coming from the International Academy of Production Engineering (CIRP) and the second from the United Nations Environment Programme (UNEP), work together from the perspectives of Engineering and Management, respectively, to identify the impacts of product life cycle and generate solutions to reduce the negative impacts of this cycle, mainly from development to the end of product life.

The Performance Economy is led by Walter Stahel and, among the main contributions of this line, one can highlight the idea of a function-based economy, where the offer of services should stand out instead of selling only the physical product. Besides these, the lines related to the closed cycle and the generation of positive impacts on the product life cycle - such as from Cradle to Cradle of the Collaborative and Sharing Economy, in which products and services can be used by more than one customer, along with the current trends of the Digital Era - have contributed to structure the current proposal of Circular Economy. Although Guisellini et al. (2016) indicate that who introduced the concept of Circular Economy was the work of Pearce & Turner (1989), based on Boulding (1966), in which the idea of the economy as a circular system was already considered as a prerequisite for the maintenance of human life on Earth, the contemporary proposal of Circular Economy is an integration of several areas, as presented. However, the highlight of this one is the incorporation of Circular Economy in the economic mainstream, not as a "savior" of the planet and the human species, but as a "savior" of the economy itself, with beneficial consequences to the planet and to humanity.

For the business world, the theme has gained worldwide repercussions, mainly from the launch, in 2014, of the report "Towards the Circular Economy: Accelerating the scale-up across global supply chains", at the World Economic Forum prepared in collaboration with the Ellen MacArthur Foundation. As a dynamic concept, contemporary and under construction, mainly from practice, it is understood that economic activities in a Circular Economy generate and recover values from products and services, maintained for the long term and for all parties involved in the economic system. The transition to a Circular Economy model is based on innovation, having as its main driver the systemic effectiveness for generating positive impacts, in which one seeks, in addition to efficiency and effectiveness, to generate positive consequences for the system's stakeholders.

Thus, one can highlight the great differential of the Circular Economy by proposing the expansion of the central element of the linear economy - Production - to - the System - and thus expand, diversify and bring greater longevity to the creation, proposition and capture of value. To do this, it seeks, in an intentional and integrated way, to restore physical resources and regenerate the functions of natural and anthropic systems, bringing greater economic and social opportunities, with positive consequences in sustainability. To achieve these goals, three principles are considered in the Circular Economy (Ellen Macarthur Foundation, 2014):

1. preserve and enhance natural capital, with the restoration and regeneration of natural resources;
2. maximize resource yield, which leads mainly to waste reduction and resource circularity; and
3. stimulate system effectiveness, generating positive impacts for all stakeholders.

Although there is the integration of the material flows related to the activities of the primary, secondary, tertiary sectors and the natural environment, the diagram that represents the circularity of the physical flows presents the opportunities for the creation of reverse cycles, which return after use, in the biological (agro-forestry-natural), on the left, and technical (industrial) contexts, on the right.

On the biological side, some reverse flows related to renewables and cascading use are presented, but regeneration will really be achieved with a landscape and territorial management approach, integrating economic activities with ecosystems, within the so-called "biological cycle". In the technical cycle opportunities for recovering the value of products through sharing, maintenance, reuse, remanufacturing and recycling are presented.

In the fashion world, the Circular Economy is already recognized as one of the main drivers of innovation and corporate sustainability along with growing consumer awareness, CSR practices, the concept of sharing economy and new technologies (Todeschini, 2017). From

a managerial point of view, the transition towards CE requires the total or partial innovation of the business model of a company so that the value of raw materials and finished products is preserved along the entire value chain (Lüdeke-Freund, 2019) so as to become not only sustainable, but circular (Geissdoerfer, 2018). In fact, especially in fashion, the use of raw materials, even if produced sustainably, could contradict the very concept of circularity, given, for example, the high levels of emissions and water consumption linked to the cultivation of fabrics (Brydges, 2021). A business should therefore respond to the urgencies of sustainable development and at the same time embrace the circular principles of closed cycles of resources and energy, thus drastically reducing those necessary for its activity.

Given these considerations, circular business models are considered to be the basis of Circular Economy and to be such, they should be designed to create value by closing production cycles within their own supply chain (Lüdeke-Freund, 2019). In the global fashion industry, the adoption of circular business models is also considered a crucial strategy to definitively cut CO₂ emissions, which make up 4% of global emissions (McKinsey & Company, 2020). According to Vecchi, for truly circular fashion, all stakeholders along the fashion supply chains should proactively integrate its principles throughout the entire life cycle of each garment (Vecchi, 2020). That is, from the moment of the choice of materials and use of resources, to the design and production of garments, to the moment of sale.

4.2 The effects of the Circular Economy on society and the environment

The economic, socio-environmental and even geopolitical benefits of such a production system are diverse. EMF calculates that the transition to a circular economy would lead, among others, to global net savings of raw materials in the fashion-textile and food and beverage sectors alone in excess of 700 billion dollars per year (Rizos, 2016) and an increase in income of 3000 euros per European household (EMF, 2021). Implementing Circular Economy on a large scale would also lead to lower emissions.

The Global Fashion Agenda, which globally coordinates the fashion-textile industry's efforts toward sustainability, views the adoption of circular systems in fashion as the solution to scaling sustainable initiatives in the industry (Global Fashion Agenda, 2019). From 2017 to

date, the organization has engaged 12.5% of fashion companies worldwide to accelerate the sustainable transition through the achievement of more than 200 targets, based on implementing design for circularity and increasing the number of second-hand garments and footwear collected and resold or reused as a secondary raw material (Global Fashion Agenda, 2020). With the achievement of these targets, savings of €160 billion are estimated by 2030, due to the internalization of the negative externalities of the sector (Ellen MacArthur Foundation, 2017).

4.3 The political and regulatory incentives for the circular economy in Europe

In order to accelerate the transition to CE, industry studies stress the crucial importance of policies at local, national and international level that promote conscious and sustainable economic choices (European Environment Agency, 2019). Waiting for the natural self-regulation of the market, which over time would see an increase in the price of depleting resources, pushing individual companies to use them more efficiently, would not, in fact, avoid ecological collapse (PWC, 2019). Governments are called upon to create a mix of regulations that incentivize only those activities with positive social-environmental implications, also supporting them through the creation of new or more competitive markets for the use of secondary raw materials and used products.

EU have moved in this direction, with the promulgation of policies that direct the fashion-textile sector towards circularity. In fact, the sector will be at the center of the policy on sustainable products within the measures of the European Green Deal, which will set minimum standards for the reduction and reuse of materials in industrial production (European Commission, 2021). In 2021, the adoption of the European strategy for sustainable textiles is also expected, envisaged in the most recent Circular Economy Action Plan. With this strategy, the EU plans to channel large financial investments in the post-Covid recovery towards a more competitive and innovative circular fashion sector (European Commission, 2021). In 2025, there will also be an obligation for member countries to set up separate urban collection of textile waste, which in Europe will start as early as January 2022, so as to increase the volume of garments collected and recycled or reintroduced into production cycles. In view of the need to create new production, recycling and disposal

techniques for textiles, numerous funds have been set up to support innovations and technologies for circularity (GIZ, 2019).

4.4 The new generation of green consumers

The consumption of sustainable fashion becomes more evident at the beginning of the 21st century, resulting from more selective consumers at the time of purchase and concerned about the origin and manufacturing method of the product.

According to research developed by McKinsey (2018), consumer trust in brands has been decreasing, that is, fashion companies should worry about transparency throughout their value chain, because consumers are more demanding in relation to the origin and mode of production, and even the design and quality of the product. For example, the Fashion Week in London was targeted by the Extinction Rebellion, a group of activists who sought to call on the public to fight against the unsustainability of the fashion industry and correct their own consumption (WGSN, 2019). Thus, these point to one the new trend for 2019 in the fashion industry.

Survey data reveals that 52% of so-called "Generation Y " (1981-1995) research about the company before making a purchase versus 45% of "Generation Z" (1996-2010). The factors examined before purchase are: creative integrity, sustainable supply chains, pricing, treatment of employees, and authenticity. They also support brands that do good for the world, with 66% willing to pay more for sustainable products. Some 42% of "Millennials" want to know what happens to products and how they are made before buying them, compared to 37% of Generation Z. (McKinsey, 2018). And they are willing to pay more for brands with sustainable engagement. ("2015 Global Corporate Sustainability"; Nielsen 2015)

Another study conducted by McKinley in November 2018 showed that people born between 1995-2010 are well digitally integrated, are all the time exposed to social media and the internet, so they are always collecting data from their personal and virtual experiences. This trend affects younger people socially and economically to consume brands with which they identify.

Digital businesses are growing significantly in a short period of time and outpacing traditional businesses. This behavior influences the way of consumption and the relationship between brands and customers. Consumers are looking for brand value, personality, and sustainability. In other words, people are increasingly engaging with brands that imprint their lifestyle in the digital age.

The new consumer is looking for fabrics and raw materials that are less harmful to the environment, i.e., products manufactured, for example, with organic cotton, fiber from PET bottles, jeans fabrics that use less water in the manufacturing process; and supports brands that employ solidarity economy, such as partnerships with NGOs or the dissemination of the production and labor chain and fairer trade.

Consumers are more likely to buy sustainable fashion products, however 60% prefer them to be in the price of regular products and only 13% would pay more to have a sustainable product. However, a survey conducted in 2017 by the Ipsos Mori institute showed that 48% of consumers over the age of 18 buy eco-conscious brands.

Young people are the ones who most support the idea of sustainability, because they are interested in knowing the history of the product, from the way it is manufactured to its disposal. Likewise, it is possible to notice that this niche is growing as a result of a greater demand from the consumer in relation to the product's production chain, through more information from the industries. Another point addressed is the idea that consumers are already engaged with products that are less harmful to the environment and that do not distinguish between genders, but that express the personality of everyone, which gives strength to the creation of sustainable clothing brands that bring freedom of expression. Technology is another factor to be taken into consideration due to the engagement of Generation Z.

	MILLENNIALS	GEN Z
TECHNOLOGY	Tech-savvy	Tech-innate
	Multitask across two screens	Multitask across five screens
	Think in 3D	Think in 4D
	Weekly TV usage: 14.8 (average hours per week)	Weekly TV usage: 13.2 (average hours per week)
	Communicate with text: SMS/WhatsApp	Visually orientated: emojis
	Preferred social media app: Facebook	Preferred social media app: Snapchat
	Favourite website: Amazon	Favourite website: YouTube
	12-second attention span	Eight-second attention span
	Radical transparency: share all	Cyber-savvy: share cautiously
FINANCIAL HABITS	Student loans: delayed home-buying/marriage	Saving early: conservative view of debt
	Live at home/rent	Value financial knowledge/home ownership
VALUES	Now-focused	Future-focused
	Idealistic	Pragmatic
	'Me' generation	'We' generation
	Dependent	Independent
	Expectant	Persistent
LIFESTYLE	Experiential generation	Sober generation
	Values convenience and dining out	Value healthy, ethical food
	Harry Potter	The Hunger Games
	Share stuff	DIY/make stuff
	Armchair activists	Active volunteers
ATTITUDE TO WORK AND EDUCATION	Want to be discovered	Want to work for success/entrepreneurial
	Team orientation	Collective conscious
	Passive/traditional learning	Interactive/social/self-learning

Figure 6 Overview of the characteristics of Generation Y and Generation Z (De beers group, 2018).

According to author Daniel A. Casoinic (2016) and the Merriam Webster online dictionary, Generation Y is defined as a group of people born between 1980 and 1995. Generation Z, on the other hand, is defined as a group of people born between 1996 and the early 2004 (Merriam Webster, n.d.; Merriam Webster, n.d.; Casoinic, 2016). A major characteristic of Generation Y is the way they communicate. The rapid evolution of how people communicate and interact is indeed a characteristic that shapes it (Dimock, 2019).

In this progression, the specificity of Generation Z is that the Internet has been part of their lives since the beginning. Wifi was born in 1996, right along with them (Futura Tech, 2009).

Social media, constant connectivity, entertainment, and on-demand communication are innovations tailored to the millennial generation (Dimock, 2019). Both generations share a general positive attitude towards sustainability. However, there is a clear contradiction between what this generation thinks about sustainability and what they do. According to Connolly and Prothero (2003), one possible explanation for this gap between intention and behaviour is that consumers lack knowledge about their contribution to environmental and social issues through their personal consumption. Consumers also tend to attribute current sustainability problems to other institutions, such as business, the education system and society. And sometimes they even refuse to accept that they may have some responsibility for the problem. Indeed, there is still a lot of work to be done in many areas, such as innovation, recycling and conservation, that could lead to a more sustainable way of life on a global scale. In addition, a positive attitude is the key to positive behavior. It is therefore critical that consumers are informed and educated about sustainable consumption and how their behavior can influence this quest for sustainability.

4.4.1 Generation Y: Awareness

Globalization, the various economic crises and the digital revolution are some of the changes that generation Y has had to grow up with and evolve. This is what distinguishes it from previous generations. The people of this generation are characterized by 4 criteria:

- Interconnectedness: they are permanently connected across the world and are adept at exchange platforms, on which they share almost everything.
- Community: they are attached to a community and share common values, but paradoxically, they need to feel unique.
- Immediacy: the arrival of new technologies has changed their behavior and made them demanding. They want to have access to everything right away, even if it's the latest thing.
- Individualism: in this changing world, they no longer identify with their parents and must therefore build themselves. They also show a huge need for recognition" (Stoffels, 2016).

4.4.2 The expectations of generation Y

Representatives of generation Y are privileged: they have access to much more information than previous generations. As a result, they are considered as consumers. They are aware of this and know that they are the primary target of marketing campaigns, which leads them to be wary of advertising campaigns and especially of the collection of data about them (Neff, 2014).

They do not all interact in the same way with brands and their own consumption habits, when confronted with digital, makes them unique. They need recognition and belonging to a community is essential for them. It is therefore important for brands to understand how this target behaves and to identify ways to interact with them on the Internet. They have understood this very well: this is why we are seeing brands flourish that grow around a community in which everyone has a right to speak (Newman, 2015).

It is no longer a question of talking about the product, but about the universe of the brand and, even better, about the universe of young people. The strategy is to produce content that interests them.

4.4.3 Generation Y and consumption

Millennials are well-informed consumers. They spend less money than their elders on food (2,741 euros per year on average, according to a Kantar study) and their consumption is more fragmented: they do not hesitate to order online or to go to specialized stores (Picard, organic food chains, etc.). Despite this, nearly half of their food purchases are made in large retail chains (Morel, 2018).

Generation Y seems to be more budget-conscious and more wary of mass-market retailers. Millennials are the kings of "good deals": they go through alternative channels to find second-hand goods, are adept at sales, low-price operations and comparison shopping (CEDEC, 2018).

People from this generation come second in the fashion market. They would spend an average of 747 euros to get dressed, every year (What I like, 2018). Among them, the profile

of the biggest fashion consumer is the Millennial without dependent children. He likes to please himself by varying his wardrobe, by having beautiful products, which will enhance him. They alternate their outfits with products from the mass market (Zara, H&M, etc.), to lighten their shopping budget. Millennials are nevertheless more concerned about the brands they buy, as well as the quality of the clothes, and they favor, when they can, brands that have a singular story or that are created in their country (What Ilike, 2018).

Another important trait of this generation, when it comes to clothing consumption, is that they need to feel listened to by the brand. They feel a need for permanent interaction to feel involved in their clothes. They are creating a trend with clicks on social networks: a customer relationship that tends to be horizontal. They refuse the omnipotence of brands (What Ilike, 2018). The Millennial is both slow and fast fashion, he balances between his ethics, his eco-responsible ideals and his budget constraints.

4.4.4 Generation Z: Disruption

Characteristics of Generation Z

Generation Z (also called Centennial) was born after 1996 and, like Generation Y, is characterized by high Internet consumption. It is not, however, similar to Generation Y, which was born with the "passive web". Generation Z was born in the web 2.0, full of collaborative tools, such as Facebook (2004), Myspace (2003), Twitter (2006) or Youtube (2005). The objective of these different networks is to promote collaboration and to allow everyone to put forward their skills and qualities to achieve a more efficient result.

This trend towards collaboration is reflected in a "boom in bartering", trading, lending and buying second-hand, in their consumption habits. Indeed, Generation Z is characterized by the 4 C's: Creative, Collaborative, Confident and Connected. These characteristics come from the fact that this generation feels alienated from the concept of ownership. They prefer to borrow rather than buy.

On social networks, centennials regularly post their opinions on the products they consume. Communication, according to them, must be a two-way street. Consumption of a service or

product is equated to an experience offered by a brand. These young adults value the moment, not the product itself.

Generation Z is described as a "hyperconnected generation": they manage their virtual contacts and feed their networks in a natural way; it is part of their daily life (Ecsdigital, 2012). These future adults are self-taught, forming their own opinions, thanks to the overabundance of information they obtain through the Internet.

4.4.5 The expectations of Generation Z

One of the expectations of Generation Z, in relation to businesses, is above all to multiply their presence, and spread it across all existing channels. Generation Z wants omnichannel, to be able to switch easily from one to another on any medium and at any time of the day or night (Gallemard, 2018). In addition, there needs to be fluidity between physical stores and websites.

Generation Z needs to be able to buy in-store and get in touch with a customer service via the medium they are most comfortable with: the main social networks, such as Facebook and Twitter, of course remain key platforms. However, Centennials can also communicate on other media, such as Instagram, WhatsApp, Snapchat or even TikTok, which are heavily used by this population. For a successful customer experience, you need to make sure you communicate on the right medium. The rule to follow is simple: always communicate on the medium initially chosen by the customer (Air Of Melty, 2019). Another expectation is to respond to requests instantly.

According to Smart Tribune, 8 seconds is the maximum time to interest a young Generation Z. If in this short time, their attention is captured, their concentration can reach a maximum of 12 minutes (Gallemard, 2018). Finally, young Gen Zers value the customer experience. According to a study by Mattersight (2016), up to 89% of them say they are willing to recommend a brand, if they have had a quality customer experience (Mattersight, 2016).

4.4.6 Generation Z and consumption habits

Generation Z is the new "mystery" those brands are trying to understand. They are, as said before, future employees, leaders and, most importantly, they are the future of our global economy.

Beyond that role, they are effective consumers. They make their own purchases, of course, but they also influence the consumption of their network: family, friends, virtual community.

Influence in the household

Young adults have prescriptive powers over their families in making decisions about consumption. Indeed, they are a major source of information (Fosse-Gomez, 1991). According to a CASSANDRA report, published in 2015, 93% of parents say that their children influence family and household spending, which means that a significant portion of total market spending is due to these young people (Merriman, 2015).

Before any purchase, the Internet to get information. They have permanent access to information and are open-minded, dare to try new experiences and are part of a desire for change. They analyze different products and brands before consuming. To make their choice, they rely on their values, on the opinion of communities and on information gathered (Air of melty, 2017).

Own purchase power

Although this generation has low purchasing power, it is still important to understand their behavior, from a marketing perspective. A 2016 Women's Marketing signature study looks at how the under-20s shop on a daily basis and, in particular, what differentiates them from their elders.

The results are that the attachment to physical stores remains with Generation Z. 64% of girls prefer to buy in-store rather than online. Yet, this target's shopping journey starts well online, with nearly 7 out of 10 young 25s using their cell phones one out of two times to research before a purchase, 51% to look for the best price there, 16% to compare it to other

products and 15% to read product reviews (Air of melty, 2017). Furthermore, we note that the purchasing behavior of Generation Z youth is distinguished by three main points: a focus on experience, a thoughtful mindset and social shopping. The study reveals that 62% of young people prefer to spend money on an experience rather than on a material good.

In the same spirit, three quarters of young shoppers prefer to shop in stores that offer engaging experiences with, for example, a clean store, pleasant salespeople, and self-checkouts (which integrate payment via mobile if possible) (Air of melty, 2017). Regarding the thoughtfulness of the younger generation, 89% of young people pay attention to the price of what they buy, but also to the quality and commitment of the brand in question. Thus, 47% of the young people surveyed say they stopped buying their favorite brand after discovering that the firm did not take care of the environment in its production process (Air of melty, 2017).

Finally, regarding the social aspect of Gen Z's purchases, 63% of young people expect brands to have a presence on social networks (Air of melty, 2017).

5 CASE STUDY: EXPORTING SUSTAINABILITY PRACTICES FROM FINLAND TO PORTUGAL

5.1 Textile and Clothes Industry Waste in Portugal

Exploratory research is a preliminary study that allows looking for patterns, ideas, or hypotheses in order to make findings on subjects little studied previously. This research also enables the evaluation of existing theories or concepts that can be applied to a given problem and new theories and concepts can be developed (Collis & Hussey, 2005).

This chapter is dedicated to the country's analysis: Finland and Portugal. Firstly, the current situation of the fashion industry in both is introduced. Secondly the development area is showed. Thirdly, the researched information found is presented and lastly the competitive advantage of joint forces of both countries for the future of the Sustainable fashion. The primary data collected for this chapter is gathered with semi-structured interviews and talks with industry owners, The secondary data is gathered from the articles, books and publications in order to support the secondary data. The reason for the chosen data collection methods is to get as reliable information from multiple touchpoints

Thus, as a first approach in this study, research was conducted on projects of sustainability carried out in Portugal and on the other hand solutions that we can import from Finland.

In the annual report on urban waste of 2017, by the Portuguese Agency for the Environment, it is stated that in Portugal an average of 484 kilograms of waste is produced per inhabitant per year. This numbers are above the European Union average (28 countries), which is 483 kg/habitant per year. When it comes to recycling, only 38% of urban waste generated in Portugal is recycled. The European Union's waste directive establishes that by 2020 each member state should reach a recycling rate of 50%. (Capucho, 2019)

The fast and cheap fashion - known as fast fashion - that came with the big global chains has changed the way we dress. The global production of clothing has doubled, exceeding one hundred billion pieces per year in 2015. Among the many consequences of this movement - namely the acceleration of fashion, copying, and the globalization of styles -

has also come the environmental burden. When it is no longer useful, most of the old clothes end up in the garbage. Some of it is put in containers for reuse, but some ends up in undifferentiated bins, and for these the only destination is landfill and incineration. In Portugal, 200 thousand tons of textiles are thrown away every year. (Capucho, 2019)

According to data from the Portuguese Environment Agency (APA) in 2017 about 200 756 tons of textiles were collected in municipal waste, a figure slightly higher than the previous year (196 865), representing about 4% of the total waste produced in Portugal (close to 4.75 million). Analysing the period between 2011 and 2017, 1.2 million tons of textiles were thrown away - a problem that is not unique to Portugal. According to The Guardian, in 2016, 350 thousand tons of clothes were sent to landfills in the UK. In the US, more than 15 million tons of textile waste is generated every year, and only 2.62 million are recycled. (Simões, 2021)

Besides production, there is also recycling - which is not done as much as it should be. According to The Portuguese Environmental Association in Portugal:

"as there is no selective collection of [textile] waste, it is collected together with the undifferentiated fraction, so its destination will be landfill, energy recovery or, in some situations, production of waste-derived fuel "and in alignment with Directive from EU) 2018/851 of May 30, 2018 (separate collection of textile waste mandatory from January 1, 2025) is planned to implement systems for the separate collection of textile waste by municipal waste management systems, or by the municipalities that integrate them. From then on, textiles sent as waste will, where possible, be prepared for reuse and recycling." (APA, 2019)

Every year, Ultriplo collects more than 6,000 tons of textile waste all over the country, preventing 90% of what is collected from ending up in landfills. After receiving the clothes, they are separated according to their characteristics and quality, and can be sent to the company's social partners, for reuse (part is exported), for recycling (30%) or to the landfill. (Lisboa Green Capital, 2020).

It would be important to make selective collection of clothes in Portugal, but that does not imply one more container. In the opinion of experts, it would be preferable to promote a network, perhaps with a management entity, which organized the collection process, enabling with more containers near people. (Capucho, 2019).

Portuguese society is attentive to the social issues associated with clothing manufacturing, but not so much to the environmental impact that this sector has. Fashion is made of trends, which makes people have a constant need to buy. It is made of cheap clothing, with poor quality, synthetic fibres and little control over environmental and working conditions. Therefore, society needs to be educated about buying and where it goes with used products. When we try to get rid of clothing in good condition, we should direct it to be reused or recycled.

In Vila Nova de Famalicão, Sasia recycles all kinds of textile waste and of different compositions: cotton, polyester, wool, linen, viscose, acrylic, among others. For 67 years, the company works to create a circular system that allows it to recover waste from its productions, thus giving them a new destination. With "automated technological processes, the company transforms the waste in branches destined to very different market segments: automotive industry, hydro film, bedding, spinning, geotextile and horticulture, among others. (Portugal Global, 2021)

The Textile and Clothing Association of Portugal, states that the future of the textile industry goes through the circular economy and sustainability, namely with the development of advanced and economically sustainable technologies that allow transforming waste into raw material. Given the fact that Portugal must import practically all raw materials, a big step would be to create them through waste. (Geographic, 2018).

5.2 Opportunities in Portugal Textile Factory

Portugal is a country with a lot of potential to be one of the main producers of sustainable Fashion in Europe. The wages are around 8 euros an hour which is higher than most of Southern-Eastern countries in a factory, the closeness to the sea enables to use this source

as energy and the abundance of history coming from textile since the century XVI where Portugal had great connections with primary materials essential to the confection of clothes.

Portuguese factories in the textile sector are part of the solution to bring garments to life through innovative methods, even if the pieces they transform are not sustainable at their origin. This is the case with Zara, which at first glance may not be the most ethical brand, but when it comes to avoiding waste, it is one of the first to say yes to Pizarro, a Portuguese company based in Guimarães, which works with sustainable technology.

A similar situation happens with Valérius 360, which takes used pieces, crushes them and creates new collections that allow outfits that don't even seem to have been other shirts or jeans once.

“Made in Portugal” is a new premium and sustainable asset for luxury brands. The Iberian country detains an incredible tradition in leather, textile, and footwear manufacturing, and has grown into a powerful industry with great capacities, ambitions and opportunities. In 2020 the apparel market's revenue amounts to \$5,5 billion and is expected to expand annually by 6.2%. As 2020 year's European Green Capital, Lisbon hosted the Sustainable Fashion Business Conference last October highlighting how the country known for its flexibility, quick response, know-how and innovation can lead the way towards a more sustainable fashion industry. (Nyfeler, 2020)

Many fashion labels from small independents to large luxury brands have already taken advantage of the high-quality products and sustainable innovations Portuguese factories have to offer and can already witness the shift in customers' shopping behaviours. While this market was only a niche a couple years ago, sustainability will become a major purchasing factor in the next five years according to McKinsey and businesses are already increasingly adopting circular economy models in response. (Nyfeler, 2020)

In one of the conference's panel discussions, Mafalda Mota Pinto, CEO of production agency SCOOP, highlighted the importance of collaboration with suppliers to implement sustainable practices and fight textile waste:

Portuguese factories are eager to be part of the change in the fashion industry and it's the right moment for brands to challenge. manufacturers to be closer to the design and development stages but to also be involved in the process of selling differently, through pre-order or even direct-to-consumer.' (Nyfeler, 2020).

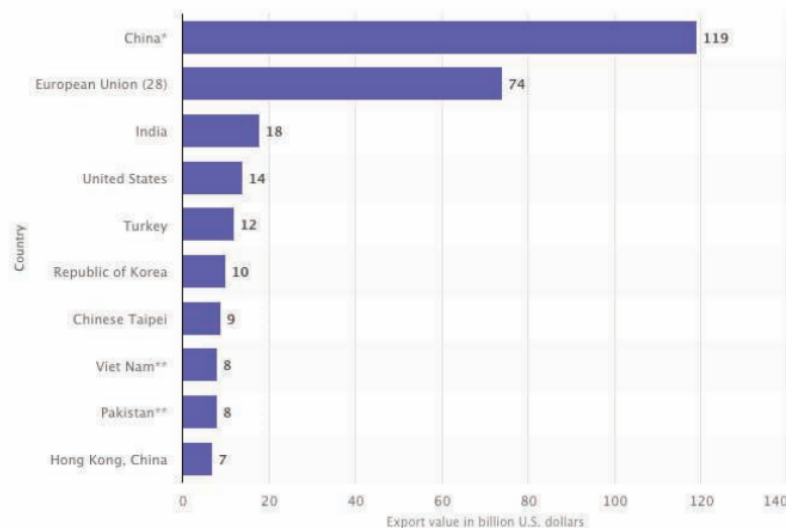


Figure 7 Value of Leading 10 textile exporters worldwide in 2017, by country (in billion USD)

Portuguese factories don't have the capacities to produce volumes that could compete with Asian markets, they do however have the flexibility to manufacture small, tailored quantities with shorter lead times. While labour costs in China are rising to almost \$4 an hour but stay relatively low, Portuguese factory workers are earning an hourly rate of \$8 which is about 1.5 times higher or almost equivalent to some Eastern European countries. However, companies such as SCOOP are complying with strict ethical standards to take responsibility for preserving the environment and providing superior health and safety conditions for all its employees. Plus, the unique craftsmanship and artisanal flair of these factories combined with an innovative and creative approach enable the production of premium garments that are instantly recognisable. (Nyfeler, 2020).

5.3 Future of Sustainable Fashion Made in Portugal

Fashion is an economic sector that accounts for about 5% in GDP. Add to this the fact that the sustainability buying index has grown worldwide by about 15% since the beginning of the pandemic. Portugal in 2020 is the European Green Capital and is already an example of production in a sustainable way and the country's ambition is to broaden the spectrum and take this discussion beyond borders to show international fashion brands how attractive Portugal is in this sense.

Valérius, a Portuguese company is an example of excellence and innovation on the technological front. Elsa Parente is the CEO of the RDD - Research Design Development project, which develops knitwear that uses the least resources and that is recyclable at the end of its life. Examples include alternative natural fibers (nettle is stronger than cotton and hemp has good absorbency and produces 250% more fiber than cotton; natural-based biopolymers that replace polyester and can be biodegradable; recycled synthetic materials; natural dyes and what they call "wellness fibers," degenerated cellulose that incorporates 4% algae and has beneficial properties. (Portugal Global, 2021)

In addition to these innovations, Valérius has been chosen worldwide for a project with Cambridge University to implement a genetic-based dyeing process. "Colorifix" in which DNA from colours present in nature and introduces that genetic code into microorganisms capable of reproducing the colours for the dyeing process. This process can be crucial for change in the fashion world since it saves 40% energy, uses no acids or solvents, uses 90% less water, and generates 90% less waste. . (Portugal Global ,2021)

Portugal is already taking important steps in future of sustainable fashion. In 2016, Kaleigh Tirones founded the sustainable clothing brand Cleonice, which stands out for its ecological fibers and the versatility of its pieces.

Constança Entrudo is one of the promising names in national fashion, with a regular presence at Fashion Lisbon. The young designer bets on sustainability, but it has not been an easy path, because, according to her, the factories are not prepared to produce ecofriendly pieces. In her collections, Constança Entrudo seeks to collaborate with other designers who have sustainability printed in their DNA. (Portugal Global, 2021)

Sustainability is gaining more and more importance in the fashion world. There are consumers who have already adhered to the values and principles of eco-fashion, but there are also those who are not yet informed enough to be carried along by this environmentally friendly current. (Portugal Global, 2021)

In factories, sewing machines set their needles to organic fibers. Workers are fighting for better working conditions. Consumers are more aware of what they buy, where they buy it, and why they buy it.

5.4 Finnish Practices in the Fashion Environment

Sustainable fashion has been a global goal, but we are still far from reach it. The majority of the Finnish industries are still operating based on old methods and ideologies. In addition, the majority of Finnish consumers shop at fast fashion stores and supermarkets (Liukko, 2016).

However, a great deal of progress has taken place during the last years. A shift toward more-sustainable consumption is happening as more people come to value sustainability, and we see this new attitude starting to affect buying decisions. In addition, many of the newer clothing labels have ecological and ethical commitments as core values. (Liukko,2016).

Flea markets and second-hand stores are popular in Finland. People of all ages and social backgrounds shop second-hand. In addition to flea markets, there is also a different way to wear second-hand clothing: In Finland there are already three clothing libraries from which members can borrow clothes. The oldest one, Vaatelainaamo, is based in Helsinki, but new ones have emerged in Tampere and Järvenpää. New business models like clothing libraries are essential to making the shift toward sustainable consumerism. (Liukko,2016).

5.5 Case Study: Startup X

The researcher suggested the Startup X to conduct interviews do gather information about the Sustainable Fashion in Finland and the startup ecosystem driven in Finland The

interviews were conducted on a video-call on Google meets due to the restrictions imposed by COVID-19.

The scope of the questions were open topics starting from the sustainability in Finland to the costumers and the market in Finland.

Startup X is providing modern day tailoring services to worn clothes. Often repairing clothes can be overlooked as an option because of the high price or because of the burden of finding a tailor that does repairs. Startup X the repair of worn clothes simple, cost-effective and easily accessible through its web app and its full logistics solution.

In conscious consumption the rule is to repair everything that can have a longer life. The spread of the principle of the three Rs has conquered the world, awakening attitudes committed to reducing, recycling and reusing everything that can make a difference in the planet's sustainability. Improved, this principle now refers to the order of repair. Created by a group of Finnish students by Aalto in 2020 Startup X opposes the throwaway culture and provokes new postures towards conscious consumption. In fashion, this trend fits like a glove and highlights actions such as adjusting, customizing, gluing, dyeing, and refashioning.

The new sustainable rule is at the centre of the start-up Startup X, which allies repair with technology. The company allows the drop out of clothes in the postie boxes present in supermarkets and sends them to the tailors.

From all the clothes that go through the machines, half are jeans. Hem and leg adjustments add to the proposal to reform the waistband to update the pants with a lower waist. "Sometimes they are pieces that have been in the closet for a long time and the adjustment makes them look new again," say Henri from Startup X. Henri highlights that people have realized that it is worth investing in repairs that excel in keeping original details such as stitching and finishing. "This is what we do, and it gives the customer confidence," he says.

The wave of mending is also taking old clothes from drawers and hangers, smelling of nostalgia and history. Wedding dresses or an ordinary piece that wears good memories are returning to the scene after a repair. "In most cases, besides being a symbol of affection, it

is something made of a noble fabric or unique print that no one wants to do without," explains the owner Henri, CEO of Startup X.

5.6 Competitive Advantage

There is the idea that sustainable fashion only applies to second-hand or other pieces made with certified cotton and minimal environmental impact. Also, it is a fact, but the concept goes far beyond that.

Finland is well known for the top educational system in the world according to Pisa, highest ranks of happiness and trust. Portugal in another hand is well known by its traditions, warm beaches and amazing food. The lively Helsinki based startup scene is providing with innovations with augmented reality, most of them utilizing some sorts of wearable technologies and sensors. This has allowed new business opportunities to the otherwise stagnant fashion industry (Hovi, 2017).

The Portuguese textile industry and its designers play a major role in shaping the pan-European textile industry and give sustainability more weight in the future (Simões, 2021).

Joining the two forces of the potential industries might bring a bright future to Sustainability in Europe.

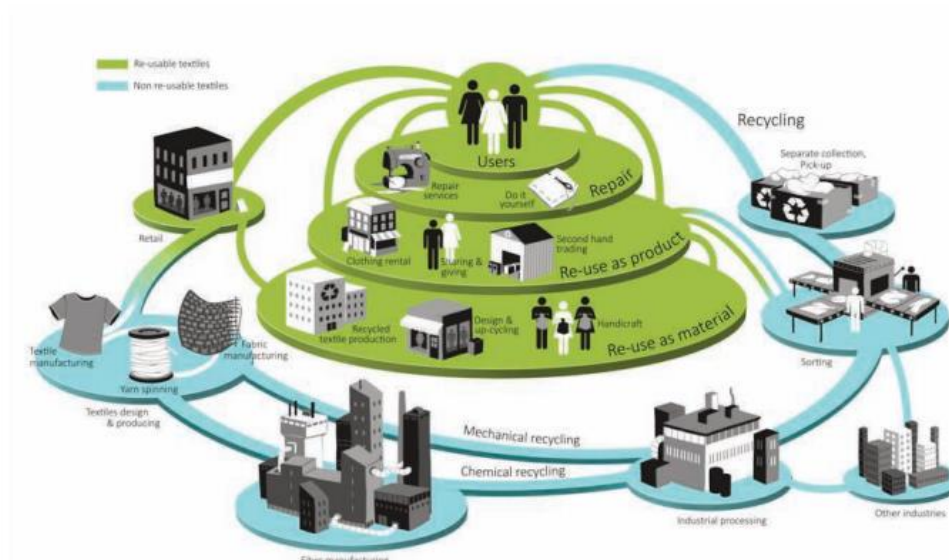


Figure 8 Schematic view of many important aspects of circular business ecosystem for textiles with a focus on material flows. Source Ethnica

In the late 1940s that Finland, a country with an agricultural and forestry economic base, transformed itself into a modern industrialized state, highly diversified and with a per capita GDP that is among the highest in Europe. Finnish society is based, above all, on the level of its education system, on equality of opportunity, on solid social security, and on an essentially export-based economy (Kudel, 2021).

Finland usually appears in the first positions in different international comparisons on green and digital economies. The leading role of the Nordic countries - and Finns in particular - is evident, for example, in rankings such as environmental policies and digital competitiveness.

Portugal is very different in this respect; economies are still very much focused on social security and the environment is second on the agenda. This fact does not mean that Finland's initiatives cannot inspire Portuguese efforts in areas such as digital government and fighting climate change. In the European Union, Finland is one of the pioneers in initiatives that we are now doing collectively (European Commission, 2021).

With a highly competitive manufacturing industry, including forestry, mechanical engineering, engineering, telecommunications, electronics, biotechnology, and the

promotion of start-ups, Finland depends, in the vast majority of cases, on the import of raw materials, energy, and components (Kudel, 2021).

The Finnish educational model has also been recognized for many years as one of the most advanced in the world. The strength of the education leads the country to one of the most competitive economies on the planet, according to research by the Swiss business school IMD published in June 2020.

With one of the most ambitious environmental targets in the world, Finland plans to neutralize 100 percent of its carbon emissions by 2035. In addition to the above Finland currently offers a vibrant environment for start-ups and young people to create their own companies, essentially valuing companies that combat climate change. All over the country we can see these kinds of initiatives present in universities, for example Aalto Entrepreneurship Society is the largest student-led society in Europe, which aims to promote entrepreneurship at university. All over the country we have Entrepreneurship Societies, mostly supported by universities that promote these practices for free and openly. (Business Finland, 2020)

Portugal has been recognized internationally for its performance in fighting climate change and in energy sustainability. According to the Bertelsmann Foundation's Sustainable Development Index, Portugal is among the five best performing countries in terms of combating climate change, being 4th in CO2 emissions associated with energy production and energy sustainability, and 5th in terms of primary energy intensity and energy efficiency. (Lisbon Green Capital, 2020)

Due to its geographical position Portugal has an enormous advantage in natural resources and a privileged position with regard to renewable energies in the industries. The two countries Portugal and Finland fill each other's gaps perfectly. The vibrant energy of start-ups in these two European locations, technology and innovation can be unique and effective strategies for a more local, circular and environmentally friendly industry (Geographic, 2018).

5.7 Swot Analysis: The cooperation for a change in the Fashion Industry

In this chapter we will proceed to a SWOT analysis of the advantages of the alliance of the strengths of Finland and Portugal in order to create a more sustainable production and distribution within the Fashion Industry.

Table 2 Swot Analysis: The cooperation for a change in the Fashion Industry

Strengths	Weaknesses
<ul style="list-style-type: none"> • Both countries are from EU • It's easy to access and track the origin of products • Both countries have a strong brand identity and a global goal to reach a sustainable development • The collaboration brings a long-lasting quality product to the industry 	<ul style="list-style-type: none"> • Low production scale • High production cost • No access to the best suppliers • Process still unknown to the public • Low investment in marketing
Opportunities	Threats
<ul style="list-style-type: none"> • Growth of e-commerce 	<ul style="list-style-type: none"> • Unpredictability of world economies.

<ul style="list-style-type: none"> • Increased interest in sustainable and ethical fashion • Sustainable clothing lacks beautiful and interesting • Interesting design • Young public very involved with fashion • Identification of business opportunities to generate partnerships/investments from companies (joint R&D projects, M&A, renewable and projects in third countries) • Sectorial image campaigns; • Establishment of brand presence; • Deepening knowledge about the market. 	<ul style="list-style-type: none"> • Necessary financial investment. • Decision and planning deadlines between the two countries • High price of input materials for clothing manufacture in Europe • Effects of the covid-19 pandemic • Increased international competition especially from countries like China, Indonesia and Vietnam • Strong brands already established in the market that have been using fast fashion for decades
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This partnership or alliance is born at a time after the covid-19 pandemic, and therefore faces a scenario of political-economic instability. The price of inputs for manufacturing clothing, for example, has risen considerably. On the other hand, in the face of the social isolation measures caused by the pandemic, e-commerce has grown, and consumers have

become more inclined to buy clothes online - an advantage for sustainable fashion where it has a platform for differentiation.

To take advantage of this opportunity, it is important to invest in the online store, in the presentation of the products on the website, and in the communication of sustainable brands in both countries. It is a moment in which the interest in products with less environmental impact has also shown itself to be relevant. The consumer is more interested in clothes made in a sustainable and ethical way and is willing to pay more for them. However, the options currently available in the market do not always present differentiated aesthetic solutions - many brands produce similar pieces with little innovation, no identity, and even doubtful sources.

The Portugal-Finland alliance can reach this young public interested in fashion, who want to dress in an authentic and conscious way. Its main strength is to offer products with original design and quality, made with sustainable raw materials and fair production. The lean collections, besides being financially more advantageous, also demonstrate an environmental concern because they avoid waste in production and stock. However, because it is a new initiative, it may have difficulties in implementing itself in the market, due to high production costs and a low scale, which is not served by all potential suppliers. It still needs to win its audience and increase its marketing investments, which will be possible with marketing strategies conducted on social networks and digital platforms. Therefore, it is necessary to optimize production between the two countries in order to decrease costs and consequently raise capital for increased investments in both countries in advertising and other services. By being able to reduce the influence of the weaknesses, and even mitigate them, it will be possible to compete in the market both with the third World Country, with productions extremely below the average.

The COVID-19 pandemic can be seen as an opportunity and a threat since it accelerated several trends in the fashion industry, including a shift to digital, a renewed focus on fairness and social justice, and the emergence of a "less is more" mindset. The fashion market, which was already in a digitalization flux, had an acceleration because of the pandemic. If, before, online shopping and social network profiles were the most talked about topic, today the subject goes beyond. (McKinsey, 2021)

6 CONCLUSION

6.1 General description of main results and recommendations

Since its conception, the concept of sustainability has changed and is now part of the daily lives of people and organizations wishing to maintain their position in the market. Due to environmental issues, pollution and emissions produced by companies, society is increasingly pressuring organizations to behave more environmentally friendly. In addition, the increase in consumption, supply, the ease of disposal of fashion and textiles goods, the short life cycle of some products and the speed with which consumers change their profile and needs, are challenges that the fashion industry faces to remain sustainable and competitive against the competition. Faced with these issues, several industries, such as the fashion industry, see sustainability as a way to create value for stakeholders, improve their image, remain competitive and offer a product that meets consumer needs without polluting the environment. As previously mentioned in the literature review, the fashion industry carries out its manufacturing process in different parts of the world and at all stages of its supply chain we can identify some type of emission or waste production, which makes the supply chain the main actor in the change of the fashion industry to sustainability. Many are the practices that can be applied by the fashion industry along the supply chain and many of these practices are already being adopted, according to Delai & Takahashi (2013) the reduction of product packaging and transport packaging are practical examples that the fashion industry can use to minimize its environmental impacts.

Fashion has the power to modify values. It recalls, recovers, renews concepts, at the same time, evidences a current state of mind, signalling changes, whether social, political, economic, cultural or environmental. The present work shows the constant search of the consumer, for differentiated products in the fashion market. Therefore, to stand out in the middle, and overcome the competition, an alliance between countries like Finland and Portugal, allied to sustainability and cultural issues, becomes important for the brand, which must always be abreast of current issues. People are no longer concerned only with buying a product and consuming it but are looking for something that contains values that contribute directly or indirectly to the well-being of society. Due to the recent pandemic, this project may not seem feasible or realistic, but the digitalization and progression in online business,

it seems to make sense, brands can stand out on online platforms and reach consumers willing to pay for sustainable products, the marketing, not explored in this work but highly important in the promotion of sustainable practices will play a decisive role in the future of the circular economy in Fashion.

6.2 Usefulness of the analysis

Suggestions are relevant for the countries and companies approached as they were constructed and designed according to data collected and different models together. Sustainable Fashion and practices are essential for the future and part of a profitable business. Particularly, in the case of global operations where processes are divided across the globe with the responsibility division for different departments or subcontractors. Therefore, it is important to continuously optimize cooperation, practices in a global level.

6.3 Research reliability and validity

The data was collected using primary as well as secondary data, therefore the research relies on interviews, observation, publications, online articles, and webpages. The interviews were conducted from 2020 to the beginning of 2021. Due to the newness of this topic a lot of articles and interviews were made to reflect a current situation of the fashion industry, The research is extensive, from multiple perspectives and reference points and it was never meant to be in-depth research.

6.4 Future research

According to the results obtained and all that has already been mentioned, it is now important to make some recommendations for future research, considering that research, such as this one, can be more comprehensive or focus only on certain factors, in order to deepen them. The union of industries, countries and practices can accelerate the sustainable process not only in the fashion industry but also in other sectors such as education. It is also considered interesting for research the choice of other relevant factors for sustainable behaviour that could be studied, with the objective of also understanding if, directly or indirectly, they influence the intention to buy sustainable fashion and if they are

related to some factor inherent to experiential marketing. It is also important to explore other experiential factors, for example related to the online shopping experience. The study of the relationship between sustainable fashion consumer behavior and experiential marketing, though, for example, the phases of purchase decision (which relate to the points of contact between consumer and brand).

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APPENDICES

APPENDIX 1. Data of Interviews

APPENDIX 2. Frame for interview with CEO of Startup X

APPENDIX 1. Data of Interviews

30.12.2020 Interview with CEO of Startup X

APPENDIX 2. Frame for interview with CEO of Startup X

Theme: Startup Ecosystem in Finland

Theme: Sustainable Fashion in Finland and opportunities

Theme: The types of users of Startup X

Theme: Issues Theme: Additional information