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The *Green* Development of the Italian and Chinese Fashion Industry

Analysis of the strategies, initiatives and standards to pursue a
sustainable growth

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*To my father Piercarlo,
whose memory does not fade over time.*

前言

这篇论文主要解释了引导意大利和中国的时装行业走向可持续发展的动力，其特点是生态和创新的战略商业模式来解决日益增长和出现的社会和环境问题。事实上，在认识到自己的道德、社会和环境责任之后，个人和公司都意识到，近年来他们完全忽视了自己的行为和态度对环境和社会的影响，从而打破了社会发展和环境保护之间的平衡。为了消除人类活动与自然之间的冲突，应对当前的气候变化和其他环境挑战，并确保为后代造福。由于时装业对环境问题非常重视，所以它正在推广替代、绿色和可持续发展模式。

迄今为止，可持续性被理解为必须在公司战略中实施的一个关键和基本因素，以确保向更环保及生态的销售和消费态度转变。因此，工业系统和现代社会必须对其过度的浪费资源、损害生态系统负责，这些因素都现在迫使它们实施一系列活动、政策和法规，以激励和确保促进社会、环境和财务平衡。事实上，为了实现这些目标并改善现状，既需要采取真正可持续和绿色的方向，又需要以合乎道德提高经济和财务绩效。时装业正是在这种背景下发展起来的，成为世界上污染最严重的行业之一，其特点是不断持续和过剩的生产，一方面，它刺激了对能源、资源和劳动力的巨大需求，另一方面，也产生了大量的消费、浪费和对环境的负面影响。有鉴于此，为了这种生产方式带来的问题找到有效的解决方法，不仅时装公司，而且整个社会都得努力促进该行业的可持续增长，以便同时为社会、经济和环境的进步做出贡献。事实上，可持续时尚的新趋势首先促进了对自然和生态系统、工人和消费者的安全和权利以及产品质量的尊重，从而协调了美学、利润和社会环境影响的概念。因此，近年来，许多组织已开始重新定义其战略和商业模式，同时考虑到所有直接或间接受其行动影响的人的需求，还认识到在基于道德和可持续实践的市场中，成功不再取决于经济结果，而首先取决于社会和环境目标的实现。

这篇论文主要关注意大利和中国时尚行业为促进其产品的生态增长而实施的道德和可持续实践、活动、战略和标准的发展，以推动并提高其“意大利制造”和“中国制造”品牌的知名度。实际上，尽管意大利和中国在全球纺织服装市场上扮演着不同而相互关联的重要角色，但是双方在环保和绿色时尚行业的发

展中起关键作用，因而为了与时俱进并获得有效的竞争优势，他们必须认识到并履行其社会和环境责任。

第一章说明了可持续性发展概念的表达及其对时尚行业的影响，还定义了组织应实施以将自己定义为“可持续”的商业模式和举措。这种演变源于承认其道德和可持续责任的企业文化的发展和整合，以便使员工和消费者转向更负责任和更环保的价值观和态度，从而承认并随后履行这些环境责任。随后，对意大利和中国时尚产业的环境问题进行了详细分析，并制定了应对全球可持续发展挑战的路径。在这方面，意大利和中国都表明了他们知道并愿意承认他们对环境影响的责任，还愿意向消费者和特别关注这些问题的人介绍自己作为产品安全和质量、材料使用谨慎周到、减少资源浪费的保证者。然而，关于环境和道德责任这一点，对环境问题的日益关注不仅涉及工业系统的创新，而且还涉及通过引入新的消费模式和决策过程来实现现代社会的总体发展。事实上，从九十年代开始，一种新型的消费者出现了，被定义为“价值驱动”（value-driven）的消费者，其更有道德和意识的购买态度，导致公司自己重新制定生产和销售策略，以适应随着这一新的增长趋势。

第二章主要讨论了关于实施绿色和可持续商业战略可以创造的机会，尤其是在经济、社会和环境增长和效益方面。实际上，采用旨在实施可持续商业模式（SBM）的创新方法导致组织创造共享价值，使财务目标与社会和环境进步保持一致，既保证了消费者和整个社会的利益，又获得了竞争优势，最终有助于生态系统的安全。因此，通过在其业务中解决和整合生态范例，时尚公司有机会通过创新的设计技术、材料的回收和再循环方法以及天然纤维的创造来实施新的生产、分销和传播的实践和战略，以支持有效的绿色和循环发展。随后，这篇论文分析了意大利和中国时装业为改善行业质量和环境方面而实施的实践和项目。由于这两个国家的纺织和服装行业都是资源密集型行业，它们是向更可持续的整体增长模式过渡的关键点，旨在改善意大利和中国生产的形象。虽然意大利和中国的目标是共同的，但是根据两个国家的政治、社会和经济特点，实施的战略有所不同。事实上，促进意大利可持续商业模式的实施主要由该部门的环境组织以及欧洲层面的质量和生态标准进行协调，并被视为一种改善工业体系、提高竞争力和创造市场机会的工具。相反，对于中国这一点，这一措施代表了一个包含在更广泛的

国家发展政策中的真正革命性战略，其中不仅包括在生产系统中引入环境实践，而且包括一系列创新计划和改革，例如“一带一路”(One Belt One Road)、“中国制造2025”(Made in China 2025)、“十四五”规划(14th Five Year Plan)等等，为了确保发展基于生态和创新的社会和经济文化。最后，本章分析了沟通在管理用于促进企业可持续性的实践和举措中所起的作用。事实上，一种清晰透明的沟通策略可以提供有关生产过程中使用的材料来源的有用信息，并对于传达负责任和有意识的品牌形象以及鼓励消费者和利害关系人采取更加谨慎和道德的消费态度。因此，研究了所谓的“绿色营销”(green marketing)战略，它允许企业和消费者能够发展更可持续和负责任的文化、态度和方向。

第三章分析了欧盟和中国在生态和社会可持续性领域实施的监管和认证框架，以确保时尚产业，特别是纺织和服装行业，向绿色发展有效转型。关于这方面，纺织业通过应用标准和认证来体现其生态和道德转型的努力，从而确保其致力于提高供应链的安全和质量。这些保障体系是通过国际组织制定各种标准和准则来实现的，这些国际组织一方面负责确保改进公司内工作活动和生产过程的管理，另一方面，负责控制所提供产品和服务的质量。在纺织和服装行业中，为了保证产品的质量需要许多的认证和标准，以便报告对环境或人类有害的任何化学品，并保证存在证明产品生态可持续性的回收材料。纵观意大利时装业的现状，通过国家规定和法规，它正在努力改善意大利制造品牌的形象，不仅将其作为一种高品质的产品，而且作为一种可持续的产品。因此，作为世界上最重要的奢侈品时尚制造商之一，该行业的意大利公司正在融入意大利国家时尚协会传达的共同国家战略，旨在制定和保护公共健康和环境的工具，并限制资源的开发，以支持时尚体系内循环经济的发展。关于中国纺织工业的发展和环境承诺而言，它也致力于制定和实施要求、法律和标准，以确保整个国家工业纺织体系的质量提升。事实上，为了改进和加强控制实践，并监督生态要求的正确实施，已经建立了几个国家组织来制定和实施相关法规和认证，如中国“国标”(GB standard)，这些标准在全国范围内用于确定工业系统的制造过程必须满足哪些安全和质量要求，因此也包括纺织和服装部门。

终于，第三章的最后一部分重点分析了欧洲和中国为解决时尚领域和整个工业生产系统中当前和日益严重的社会、生态和经济问题而制定的主要法律和政

策。尽管这两国并以不同的方式和原因制定了道德和环境法规，并实施了可持续的工业管理模式，但双方都履行了从社会、经济和环境的角度进一步发展该行业和整个国家的承诺。

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INTRODUCTION

Until a few years ago, firms of all sizes did not really care about the impact that their production activities have had on the environment and on the whole society over the last century. Moreover, they did not pay much attention to their negative externalities in relation to the global ecosystem, which consequently prevented them from recognizing their multiple responsibilities. However, in recent years, the aggravation of this situation has made consumers and industries more aware of these issues, and as a result, sustainability has emerged as one of the most crucial factors that enterprises must take into account once implementing their business strategies to gain an effective competitive advantage and to convey social and environmental benefits. As this script will try to demonstrate, nowadays firms are able to enhance their economic and financial performances, at the same time seeking consciously a greater social balance without renouncing to a sustainable and green orientation. Furthermore, since the notion of consumerism is moving from a perspective that is no longer oriented on the mere utility of the product but rather, above all, on its eco-sustainable qualities, in fact, there is globally a general increase in the comprehension and recognition of current social and environmental issues.

Therefore, the current thesis aims to analyze and describe the changes that have characterized the last decades in the field of sustainability by focusing above all on the Italian and Chinese fashion industry, thus one of the most impactful sectors in terms of both social and environmental effect.

The first chapter introduces the evolution of the concept of sustainability and its meaning within the fashion industry by defining the environmental impacts from a strategic, organizational, and communicative point of view. This has led companies to face and integrate the paradigm of ecology into their business to create an effective positive impact on the environment and the society, while also pursuing economic outcomes. This development focuses on creating and integrating a corporate culture that acknowledges its ethical and sustainable duties leading consumers and workers to adopt more responsible and environmentally friendly values and attitudes. Furthermore, the initiatives and strategies implemented by the Made in Italy and Made in China fashion sectors are then explored describing the pursuits of an effective green and sustainable

growth, able to ensure a better qualification of these sectors, both locally and internationally.

The second chapter describes the main business models and strategies implemented by fashion companies to enable the transition, through new techniques of design, production, recovery, and recycling of materials, from a linear and bottom-down system to a circular and sustainable economy. Another important feature highlighted here is precisely the development of a clear and transparent communication of the origin of materials and of the production practices in order to guide the consumer towards an aware purchasing decision-making process, thus developing a fairer culture and orientation.

In addition to the development of new management models, likewise ethical and environmental policies, the third chapter deals with certifications, standards, regulatory and legislative frameworks regarding ecology and social sustainability implemented by Europe and China in order to improve the safety and quality of the whole supply chain and to pursue the development towards a green and more sustainable economy worldwide.

CHAPTER I

SUSTAINABILITY IN THE FASHION INDUSTRY

1.1 The concept of Sustainability

Before going deeper into the matter of sustainability in the fashion industry, it might be necessary to first introduce its general concept.

Sustainability can be described as a way “*to protect the environment, use natural resources wisely and promote quality of life, while not spoiling the lives of future consumers*”¹. Some scholars (Newholm, T. & Shaw, D. 2007) have pointed out that sustainability has multiple meanings in different contexts, and it can be used interchangeably with environmental/eco-friendly, green, and ethical, thus it cannot be defined in universal terms. Basically, “*a sustainable system is one which survives or persists*”² suggesting that sustainability is usually defined by a forecast of activities made now that are expected to be sustainable in the future, suggesting it is always about temporality, especially longevity. Therefore, an environmental system cannot be regarded as one until enough time has passed to determine if the predictions were accurate.

The concept of sustainability was introduced for the first time in 1972 during the first “Conference on the Human Environment”³ organized by the United Nations Organizations in Stockholm, merely focused on ecological issues, it represents the

¹ Yates L. (2009). Green expectations. Consumers’ understanding of green claims in advertising. *Consumer Focus*. [CrossRef] (accessed on 7 June 2022, 10:30).

² Costanza R., & Patten B.C. (1995). Commentary: Defining and predicting sustainability. *Ecol. Econ*, 15, 193–196. [CrossRef] (accessed on 9 June 2022, 15:30).

³ United Nations. (1972). <https://www.un.org/en/conferences/environment/stockholm1972> (accessed on 7 June 2022, 11:00).

beginning of international collaboration for the protection and improvement of the ecosystem.

Subsequently, in 1983, the United Nations General Assembly established the World Commission for the Environment and Development (WCED) chaired by the Norwegian Gro Harlem Brundtland, whose goal was to seek a compromise to ensure the balance between environment and development. In 1987 the concept of sustainability gained worldwide notoriety through the report “Our Common Future” published by the WCED, also known as the Brundtland Commission. Linking sustainability to environmental integrity and social justice, as well as business and economic prosperity, WCED introduced the theory of sustainable development, defining it as “*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*”⁴.

This concept of sustainable development relies on three pillars that must be addressed in an integrated way that are environmental, social, and economic ones. This suggests that organizations must not only monitor the economic performance of their business activities, but also consider environmental and social aspects due to the necessity of improving social wellbeing while reducing their influence on the ecosystem and ensuring the realization of organizational goals. Among the three fundamental factors there is the ecological one which indicates the ability of reducing the environmental impact of production activities, while also trying to limit wasteful consumption. At the same time, the second element of sustainability is connected to the social dimension, which concerns the right to health, the respect for labor conditions, fair wages, and human rights. The third pillar, the economic one, is associated with the sustainable business practices adopted by organizations, which have an impact on their whole value chains and therefore, their financial performances. As a result, a company that aims at sustainable growth must concentrate on establishing a balance between the three key pillars of environmental impacts, social effects, and economic success. In particular, the organization’s capacity to meet the goals of environmental integrity, which refers to

⁴ WCED. (1987). Report of the World Commission on Environment and Development. Our common Future. *United Nations Digital Library*. <https://digitallibrary.un.org/> (accessed on 7 June 2022, 11:00).

effective resource management, social equality, and economic success, is closely related to its pursuit of a sustainable business model.

One of the topics that most reflects the concept of sustainability is certainly ecology, which concerns issues related to the environmental emergency, the waste of natural resources, the scarcity of raw materials, and the increase of pollution. As a result, adopting a business strategy that includes initiatives capable of minimizing the ecological impact of its production activities, limiting consumption, and producing goods whose raw materials are natural and recyclable is necessary for a company that wants to be comply with sustainable requirements. However, sustainability involves not just consideration for the ecosystem but also for everything associated with the idea of responsibility, including respect for the rights of individuals as well as for the health of customers, and employees. Furthermore, nowadays, its extended notion is interpreted by last generations as a sense of the search for well-being, a higher standard of living and a deeper sense of responsibility towards the environment in which they live. All these actions adopted by an organization that adheres to an ecological perspective and implements measures for environmental development are related to the concept implied by corporate sustainability.

Therefore, in order to better comprehend the relationship between corporate sustainability and the direction that a business must take in order to be environmentally responsible, it may be helpful to introduce and clarify this notion.

During the 1980s, social issues including human rights, quality of life and poverty became more relevant, especially in less developed countries. This situation of public concern led to a growing pressure for the implementation of new approaches to integrate the protection of the environment along with the development of society. As a result, the idea of corporate sustainability, often known as “Corporate Social Responsibility” (CSR), has grown in relevance and refers to the necessity for firms to create a sustainability-oriented organizational culture and strategy that integrates social, ecological, and economic considerations. Basically, corporate sustainability adoption necessitates a revision of assumptions regarding the relationship between people and environment, hence, its integration provides a change in employee attitudes and beliefs in favor of more moral and responsible ones.

By evaluating the relationship between organizational culture and corporate sustainability, it is helpful to take into account the Competing Values Framework (CVF) in order to describe what a sustainability-oriented organizational culture means. The search for corporate sustainability is actually centered on a variety of factors, including internal dynamics, resource acquisition, environmental protection, and economic performance, according to the various types of firms and employees.

The CVF framework is characterized by four categorical schemes that summarize how people organize their principles and beliefs within an organization on two separate and competing dimensions: the internal-external dimension suggests whether the organization is focused on its internal dynamics, or on its external environment; and the flexibility-control dimension reflects whether organizations prefer coordination and control, or flexibility. As a result, organizations that prioritize the control dimension are more likely to rely on directive coordination, rules, and organization; in contrast, organizations that prioritize the flexibility dimension are more likely to place a greater emphasis on training, involvement, socialization, and commitment. Thus, from these two competing dimensions are formed four different culture types that are presented in the below Figure 1.

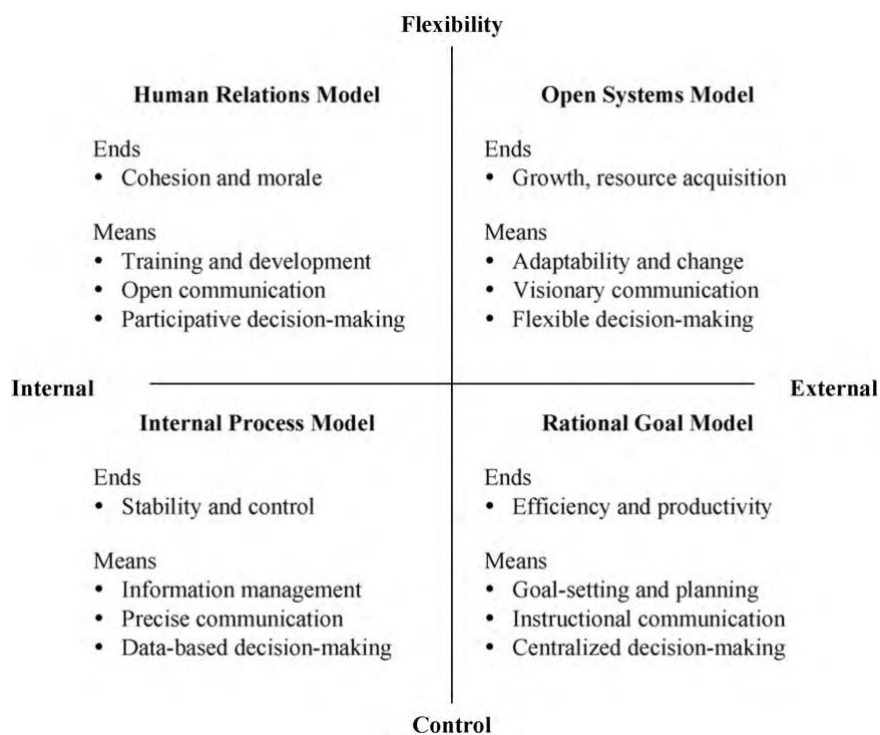


Fig. 1. Competing Values framework

Source: Linnenluecke M.K., & Griffiths A. (2010)

As can be deduced from the framework above, there are four different culture types that place emphasis on different organizational characteristics. Despite first appearing to be mutually exclusive, these culture types may coexist, allowing enterprises to find the proper balance.

Starting from the upper left quadrant there is an organizational culture dominated by human relation values which promotes employee cohesion and engagement. Thus, in contrast to the internal process quadrant, these kinds of organizations will pursue corporate sustainability by placing an emphasis on social engagement, internal employee development and skills, satisfaction, and productivity by investing in human capital, education, and training. While organizational cultures characterized by open systems values (upper right quadrant) are more focused on growth and resource acquisition by promoting adaptability, change, visionary communication, and flexible decision-making. The open systems model highlights how the structure of organizations is largely influenced by the external environment. Therefore, these organizational cultures assume that associations are not separated from the natural external environment, but rather are influenced by it operating within it, considering ecological and social sustainability at the basis of corporate sustainability, believing that the achievement of it occurs mainly through innovation.

Instead, the lower left quadrant denotes an organizational culture dominated by internal process values, also known as “hierarchical culture”, which promotes stability and control through information management, accurate communication, and data-driven decision-making. Therefore, these organizations are characterized by a greater attention on the economic performance, without taking into consideration all the other aspects, in fact, this type of culture seems to encounter difficulties in introducing a commitment to corporate sustainability due to their fundamental values based on stability and control that prevents the organization from being more flexible. While the organizational culture led by rational goal values (lower right quadrant) promotes efficiency and productivity, which is reached through goal setting, planning, instructional communication, and centralized decision-making. Therefore, organizations characterized by a rational goal culture to pursue corporate sustainability will focus more on resource efficiency while taking environmental needs into account.

Finally, from the analysis of the relation between the four different types of organizational culture in the CVF and the adoption of the corporate sustainability values, it can be assumed that different types of organizational culture influence the way in which employees understand and implement corporate sustainability, demonstrating that essentially, each quadrant represents a set of outcomes that suggest how to achieve these principles. In conclusion, to embrace today's meaning of sustainability related to economic, social and production dynamics, it can be identified as conscious consumption, fair trade, less wasteful economic processes, and promotion of a sustainable lifestyle.

1.1.1 Sustainable fashion

Having clarified the origin of the concept, it is now necessary to provide an explanation of the meaning of sustainability in the fashion and clothing industry.

The fashion industry has always had a significant impact on the environment and society, given the fact that for example only 1% of the materials used to produce clothing are recycled. Furthermore, the clothing sector is one of the greatest labor-intensive industries with most of the production located in low-income countries and made up of young people, mostly women, in fact 80% of the 75 million working in fashion distribution networks are women aged between 18 and 24 years.⁵

The concern related to the environmental and social sustainability of products and production processes has led the industries of some sectors to grow significantly, among these growing industrial sectors there is certainly the one of fashion. Over the past twenty years there has been a great increase in the demand for and consumption of clothing, and at the same time producers and consumers have also begun to develop a greater awareness towards environmental and social issues which are now fundamental to preserve the brand image of a company. In this perspective, it is extremely important to take sustainability into account, since an inadequate management can negatively affect a company's reputation and consequently its financial performances.

⁵ Pero M., Arrigo E., & Fionda-Douglas A. (2020). Sustainability in Fashion Brands. *Sustainability*, 12 (14). <https://doi.org/10.3390/su12145843> (accessed on 15 June 2022, 16:00).

The growing demand for environmentally and socially responsible products coming from public opinion and customers has therefore led the fashion industry to recognize its social, environmental, and economic responsibilities and to promote ethical and ecological marketing policies by reducing the exploitation of natural resources and pursuing sustainable development in order also to increase the awareness of customers.

Starting from the 90s, the notion of sustainability reflects the development strategies that are gaining importance in the industrial background, especially in the fashion sector, which will become a real competitive advantage over the emerging fair-trade markets. Therefore, in this period, especially in the pioneering countries of eco-sustainable fashion (Scandinavian countries, Northern Europe, Germany, and Canada), the modern concept of green fashion is defined as one that respects not only the environment, but also the health of workers and consumers, recognizing the value of human rights, using wisely raw materials and energy resources, trying to limit waste and to promote transparency in its production processes. In addition to the growing focus on ecological concerns, another important factor that has led the fashion industry towards the implementation of more organic production models is the transformation of market needs, in fact both consumers and producers are increasingly interested in products that can satisfy environmental and social safety and sustainability requirements.

Nowadays, businesses need to define efficient and concrete actions to address the global challenges of sustainability, while also seeking to protect their reputation and take advantage of the possibilities brought by the enhanced attention on environmental and social issues. In recent years, this concern has influenced the business models of many enterprises, especially among fashion brands, leading organizations to incorporate ecological development into their strategies and to conduct business activities in a way that has a positive impact on the environment. Furthermore, to successfully address these challenges, the fashion sector sets itself a new objective: to follow the path of “*sustainable fashion*” by putting ecological practices in place. In fact, most apparel enterprises aim to develop new socially responsible initiatives through training employees and educating customers to raise awareness and involvement. In this regard, to fully comprehend this concept, it is essential to explain what the term “sustainable fashion” means.

The concept of sustainable fashion also known as eco-, green- and ethical-fashion has been developed in recent decades, specifically it first emerged in the 1960s, when

consumers began to develop a greater awareness of the impact that the production of clothing had on the environment and thereafter, the first anti-fur campaigns appeared in the 1980s and 1990s followed by an increasingly strong ethical and social responsibility towards the end of the 1990s. The idea of ethical fashion was therefore described as being linked to respectable working conditions, a sustainable business strategy, natural and eco-friendly materials, and certifications that ensure the safety of both customers and employees. The trend towards sustainable fashion, also defined as slow fashion movement, emerged as a response to fast fashion cycle and prioritizes above all respect for nature, the value of work and the importance of quality clothing over quantity. In fact, in order to be considered responsible, a fashion enterprise must be able to reconcile ethics and profit, thus, the areas on which it must primarily focus to pursue sustainable growth are product quality, worker safety, reduction of pollution and the consumption of natural resources, recycling, consumer well-being, and respect for human rights.

In summary, it is clear from the analysis of the concept of sustainability as it is applied to the specific context of the fashion industry that the key to achieving sustainable fashion is a balanced approach between production practices and the employment of ethical and social initiatives; as a result, in order to respect the rights of workers and consumers and to communicate its sustainability strategy while providing ethical and environmental certifications to protect both consumers and producers, a responsible fashion company must implement measures to reduce environmental impacts such as carbon dioxide emissions and the use of chemicals in the production process.

Although most organizations have already started to encourage ecological fashion growth, such as through the use of organic materials, it is still challenging to establish a definite transition to a sustainable fashion system. One of the biggest obstacles is related to the fact that organizations frequently take actions that obstruct this development in order to maintain their competitive advantage. Examples include price reductions that affects product quality, continuous production to satisfy consumer demand, and

misleading marketing communications like the so-called “*greenwashing*”⁶ strategy which is confusing advertising that portrays a company as green and sustainable even though it is not. Moreover, among the leading companies in the fashion industry that obstacle the improvement of sustainable practices, there are the so-called “*fast fashion*” one, which are based on a business model focused on the quantity of production and on a marketing-strategy based on the rapid collection of trends to enable the proposal of continuously updated articles and products.

The *fast fashion* phenomenon has transformed the apparel industry over the last decade by consistently meeting customer demand for innovations while lowering awareness of the social costs associated with this unending consumption. The foundation of its success is a business model that is characterized by low prices and a constant production rate that enables it to offer new collections almost every week. Obviously, the increasingly fast and of lower quality production made primarily of unsustainable materials, like nylon and polyester, which often contain microplastics, certainly has an adverse effect on the environment as well as repercussions on working conditions, which are characterized by above average working hours and unsafe production places. Consequently, this lack of attention to the impact of these industries on nature and society has led the fashion industry to be the fourth most water-consuming and fifth most greenhouse gas-emitting industry, moreover, has been identified as one of the most polluting industries in the world being responsible for the 35% of microplastics in the ocean. Among the most well-known fast fashion brands, there is Shein, a Chinese company founded in 2008 that has become an undisputed leader in the industry. It was valued at 15 billion dollars in 2020, and thanks to its marketing strategy, which prioritizes convenience for consumers at the expense of sustainability, it has reached a valuation of 100 billion dollars this year, surpassing fashion giants like H&M and Zara. Given that the world’s leading fast fashion brand is Chinese, it is crucial to outline China’s position within the clothing and textile industry. Indeed, China is now the world’s second largest retail market, after the United State of America, and the world’s largest textile producer

⁶ *Greenwashing* refers to promotional or marketing strategy that present activities as environmentally sustainable that are not documented and therefore not reliable.

and exporter having 1.3 billion consumers and thousands of businesses within the apparel industry. Even though the international demand for textile products is increasing in terms of environmental and social sustainability requirements, however in China, the attention to the impact of fashion on the ecosystem can be considered as a recent phenomenon. In fact, before its entry into the international economic community, Chinese textile companies were used to adopt materials that do not comply with ecological and safety standards to lower production costs and increase their competitiveness on the market. Nevertheless, after its entry into the World Trade Organization (WTO) in 2001, which deals with the global rules of trade between nations, China had to respect the economic and trade requirements imposed on all member countries in order to protect the environment and the health of consumers, hence, it has begun to adopt more eco-sustainable production processes, to increase the ecological quality of fabrics, to impose higher safety standards and to spread greater environmental awareness in both producers and consumers, gradually trying to achieve sustainable fashion.

As previously mentioned, consumers and organizations are becoming increasingly aware of the environmental, social, and ethical challenges and are therefore pushing fashion companies to be more transparent and ethical. Due to the various environmental impacts it entails, sustainability in the fashion industry is one of the most fascinating, complex, and constantly evolving issues, and it must always be assessed taking into consideration all three of its fundamental elements (social, environmental, and economic). The path towards sustainable development implies the consideration and implementation of numerous aspects that have an impact on its realization, especially in the fashion and apparel sector.

Having clarified the concept of sustainability within the apparel industry, the next sub-chapters will examine the different features that must be considered for an effective transition to greener and more ethical consumption and production, among which there is the concept of corporate sustainability which provides the incorporation of ethical and ecological principles within an enterprise, as well as the initiatives improved by organizations to pursue this development and consumers purchasing attitudes.

1.2 Corporate social and ethical responsibility

At the 2019 Ningbo Fashion Festival, Simon Collins, founder of We Design platform, said in his speech: “*at present, many companies around the world have begun to deal with the problem of excessive production in the industry. In the future, clothing brands need to have new thinking. Do not just pursue “fast”, because “fast” has no future, but should focus on a circular economy that does not require new energy consumption, use sustainable energy, and use organic recycling*”.⁷

The current goal of many industries, especially in the fashion sector, is precisely that of reorganizing their business models and strategies in such a way as to be able to face the challenges and concerns related to ecological, social, and sustainable issues. For an organization to have a positive impact on the environment and society, it is important that its entire supply chain and individual members are committed to clearly define environmental objectives.

In such a scenario, the fashion and clothing sector is undertaking significant changes that are generating an increase in attention to ethical principles, representing a great influence to successfully face the challenges of sustainability. In fact, the apparel industry is challenged to improve both corporate economic performance and results related to sustainable development, to carry out *corporate social responsibility* (CSR) initiatives while aiming for competitive prices and communicating these activities to their customers and employees to increase their awareness and involvement. However, due to the difficulties that arise between the pursuit of economic gains and corporate commitment to social and environmental responsibility, businesses are more likely to prioritize financial goals above other obligations, such as social and environmental ones. The key component for achieving these objectives is therefore an effective organization and clear communication of CSR initiatives.

⁷ Xu Huan, 许欢. (2020). “Kechixuxing” huo chengwei shishang chanye de weilai “可持续性”或成为时尚产业的未来 (“Sustainability” could be the future of fashion industry). *Zhongguo xian jian*, 05, 100-102. doi:10.14162/j.cnki.11-4772/t.2020.05.032. (accessed on 16 June 2022, 15:30).

According to the European Commission, Corporate Social Responsibility is defined as “a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis”.⁸ Thus, implementing a CSR strategy for a business entails going above and beyond the requirements set forth by law and actively participating in sustainable development that fosters increased process transparency, social advancement, environmental protection, and a contribution to a higher standard of living. In addition, to better understand what the term “corporate social responsibility” refers to, it might be useful to introduce the theory of the pyramid of corporate social responsibility proposed by Carroll (1991). In the Figure 2 are identified four categories of social responsibility that an organization involves, economic, legal, ethical, and philanthropic.

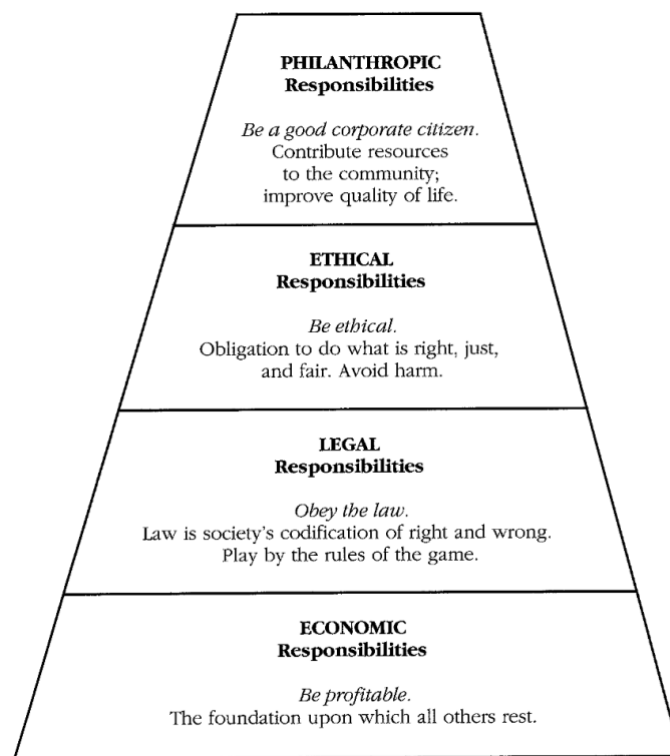


Fig. 2 The Pyramid of Corporate Social Responsibility

Source: Carroll A. B. (1991).

⁸ European Commission, 25 October 2011. Communication from the Commission to the European Parliament, the Council, the Europeans Economic and Social Committee and the Committee of the Regions. *A renewed EU strategy 2011-14 for Corporate Social Responsibility*. <https://eur-lex.europa.eu/legal-content> (accessed on 16 June 2022, 16:30).

The Carroll pyramid model, as represented in the Figure 2, may be misleading by suggesting an incorrect hierarchy among the sections of the CSR, since looking at the image appears that the category of philanthropic responsibility, which is positioned at the top of the pyramid, is the most important one, while the category of the economic responsibilities placed at the base is the least important. In fact, contrary to the philanthropic tasks, which are widely perceived as less relevant, the author emphasized that the first two duties at the base of the pyramid, the economic and legal ones, are necessary and mandatory. Furthermore, the pyramid makes it clear that the economic and legal levels include responsibilities that are socially required, the ethical level includes socially expected responsibilities while finally, the philanthropic level includes socially desired responsibilities.

It is necessary to examine each responsibility that a firm has individually in order to properly comprehend them all. The economic responsibility is the base of the pyramid since it has traditionally been seen as an organization's primary concern. In fact, a company's primary function was to generate profits while providing customers with goods and services. Moreover, an organization must operate in accordance with the laws and regulations promulgated while pursuing its economic objectives. This is known as the legal duty of a firm. Though they are positioned as the next level of the pyramid, legal obligations must be seen in conjunction with economic ones since they represent the definition of morality and injustice in a community. Even when it is not required by law, ethical responsibilities involve preserving those practices and norms that reflect what consumers, employees and in general the community consider as fair. For instance, ethical factors might include environmental and civil rights movements as well as new values that society expects companies to fulfill, even if these values and norms are not currently required by law. The last category of the pyramid is the philanthropic responsibility, which consist of being a good corporate citizen, contributing to communities improving standards of living. Philanthropy describes the socially required measures that an enterprise must do to promote human wellbeing, such as financial support to education, arts, and community in general. The distinction between philanthropy and ethical responsibility is that, despite there being a societal expectation, the first one is more discretionary since enterprises are not considered unethical or immoral if they do not contribute to the welfare of communities.

In summary, the pyramid depicts the four pillars of CSR, starting at the bottom with the economic responsibility, which serves as the basis for the other ones, at the same level there is the law since a corporation is expected to obey it. Next is the ethical responsibility, which requires a company to be fair and to do what is right, and then at the top of the pyramid there is the philanthropic responsibility, which relates to the idea that an enterprise should be a good corporate citizen. According to this theory of the pyramid, it can be assumed that the fulfillment of all four kinds of responsibilities, economic, legal, ethical, and philanthropic, represents a company's complete social duty. Therefore, a CSR company should at the same time seek to increase its economic performance, obey the law, behave ethically and fairly, and be a good corporate citizen.

In conclusion, *corporate social responsibility* represents a strategic management framework that raises the awareness of a growing interdependence between economic and social outcomes, leading organizations to act in terms of ethical-economic profit by demonstrating that pursuing ethical value would consequently increase profits as well. Furthermore, a socially conscious mindset that is sensitive to and aware of environmental and social concerns gives a business a significant competitive edge by enhancing its image and reputation. In any event, social responsibility must be seen as a tool for complete integration between the business and the environment in which it works rather than only as an additional component essential for the attainment of an economic outcome and for the development of financial performances. Only in this way enterprises will be able to make a qualitative advance, adopting effective social policies that influence their decision-making processes.

In recent years we have moved from a context in which environmental issues were taken into account by interpreting social concern only in a communicative way, such as through green marketing activities, to one where moral responsibility towards ecological and social problems has instead assumed increasing importance by improving the attention to innovation, safeguard of the environment, development of human resources and protection of health and working conditions. The idea that this attention is not only limited to ethical responsibility but also has a strategic significance is implied by this type of orientation toward social responsibility, which is closely related to that toward sustainability. After all, innovation is one of the most significant vectors of improvement from a technological, commercial, organizational, and social point of view. However,

even though organizations are committed to achieving their objectives, including moral obligations, the truth is that most businesses prioritize financial success over social and environmental advantages.

This condition leads to the development of a new theory about the concept of moral responsibility within the organization. Ha-Brookshire (2015) proposed the Moral Responsibility Theory of Corporate Sustainability (MRCS) which describes different corporate sustainability performances. The fundamental idea of MRCS assumes that there are six different types of corporate sustainability performance, depending on the level of moral responsibility within the companies and according to its sustainable objectives. In this theory, the author suggests that for a company to be truly sustainable, individual members of organizations should perceive corporate sustainability as a fundamental moral responsibility and should have clear goals for fulfilling those obligations. If, on the other hand, individual members conceive corporate sustainability as something unnecessary, then companies cannot be defined as entirely sustainable, but only occasionally. The six different levels of corporate sustainability performances can be described as in the following framework explained by Figure 3.

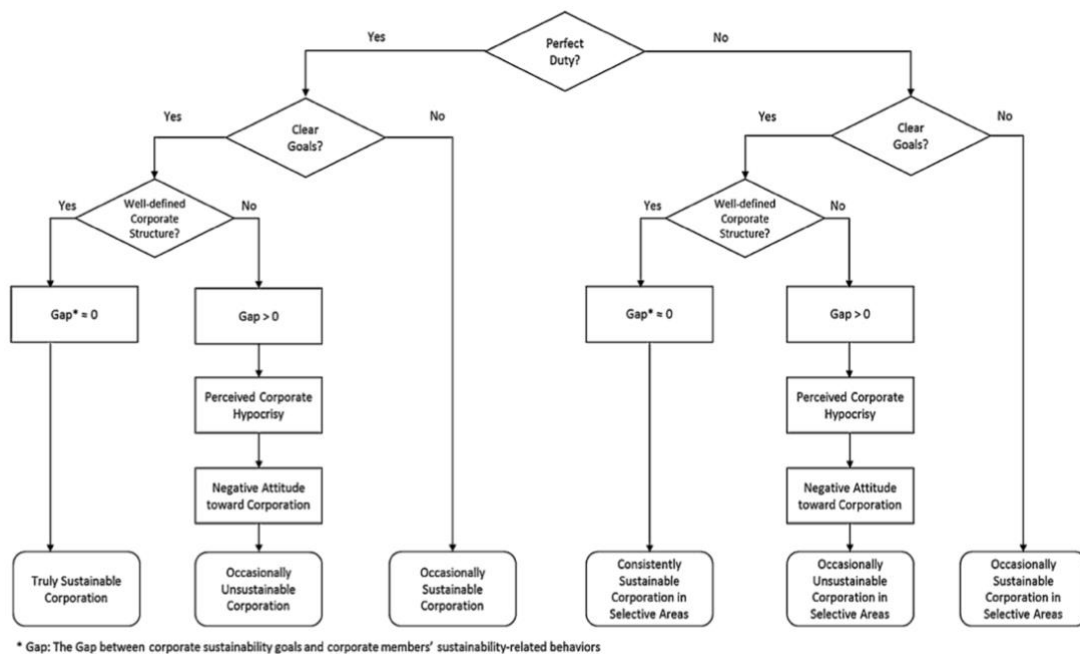


Fig.3 Moral Responsibility Theory of Corporate Sustainability

Source: Ha-Brookshire J. (2017)

To be truly sustainable, a company must therefore perceive sustainability first as a duty to fulfill and have clear and precise objectives to achieve it, secondly it must be characterized by a corporate structure whose members recognize their moral obligation and which ones are the results they should produce in terms of sustainability. Consequently, it would be a truly sustainable company that seeks to improve its economic performance while also taking into consideration social and environmental aspects, and therefore there would be no gap between the corporate sustainability objectives and the moral responsibility of the members. On the contrary, although a company considers sustainability as a duty to be fulfilled and sets clear goals, nevertheless if the structure of the company is not well defined and each member has a different perception of how to achieve it, then there will be a growing gap between corporate sustainability aims and the moral responsibility of members, creating an occasionally unsustainable corporation. The notion of corporate sustainability will be perceived differently by each employee of the organization if a corporation is occasionally sustainable but does not simultaneously define clear objectives. As a result, there will not be cohesion in attempts to attain corporate sustainability.

The other three levels of corporate sustainability performance are linked to the fact that companies do not consider sustainability as a duty. Therefore, in this case, an organization will be able to focus only on some aspects of corporate sustainability rather than all of it. For instance, if a company has clear goals and a distinct corporate structure, when its employees concentrate on sustainable initiatives, there won't be a disconnect between corporate sustainability and employee moral responsibility, and as a result, the company will only be able to claim to be consistently sustainable in a limited number of areas. While a firm may set clear goals and acknowledge that sustainability is not its only responsibility, if a clear corporate structure is lacking, there will be a disconnect between the company's sustainability goals and the actions of its employees. This methodology is likely to promote poor sustainability performance by giving the perception of corporate hypocrisy. Overall, since some employees may stop behaving sustainably as a result of the unfavorable attitudes generated by this sense of hypocrisy, the firm is classified overall as an occasionally unsustainable corporation in certain areas. Finally, when a company does not perceive sustainability as a duty and lacks clear goals and structures to achieve it, the corporate sustainability performance will be affected by the behavior of individual members, therefore some of them may behave in an ecological way thanks to

their moral responsibility, while others may not as there are no clear corporate sustainability objectives. Consequently, this kind of performance will be defined as an occasionally sustainable corporation in selective areas, as it depends on the desire of individual members to pursue ecological behaviors.

The idea of moral responsibility for corporate sustainability demonstrates that, in order for a business to be truly sustainable, it must first view sustainability as a duty that must be met before defining goals and structures to carry out this obligation. However, even with clear and mutually agreed objectives, if a firm is unable to establish a defined structure, there may occasionally develop an unsustainable society as a result of perceptions of corporate hypocrisy among members. On the other hand, a corporation will become an occasionally sustainable one if it lacks specific goals for corporate sustainability, even if it considers sustainability as a responsibility. In contrast, a company's commitment to sustainability is more likely to be limited to certain areas if it does not feel that sustainability is a responsibility that should be pursued. This is because each society may see the performance of moral obligation differently and hence make different decisions. In conclusion, the main point of the MRCS theory is the debate on how companies view sustainability in terms of moral responsibility, and it explains how an organization can be truly or occasionally sustainable and the different levels of corporate sustainability that exist depending on the focus and efforts that are placed on it. Sustainability is thus one of a company's core moral obligations, and as a result, businesses must handle environmental concerns in the same manner that they do for financial objectives.

As was already mentioned above, social responsibility, which encompasses a variety of attention to the region and the community in which an organization is placed and operates, means respecting and protecting the environment, human resources, and the health and safety conditions of workers, and is currently regarded as a key factor in the development of the fashion industry. Therefore, the fashion and luxury industry, particularly the textile and apparel sector, identifies the issue of moral and social responsibility as a priority, driving it to concentrate on the improvement of manufacturing activities and business models while paying a greater attention to the transparency of production and the integration of sustainable values. Most fashion companies prioritize a strategy based on strong social responsibility, which includes ethical, sustainable, and

responsible behavior, initiatives for environmental protection, workplace safety, respect for workers' rights, and promotion of eco-sustainable products to increase their brand's competitiveness and enhance their image. Textile and apparel companies will need to be able to meet consumer demands by investing in innovation and subsequently demonstrating a commitment to sustainable fashion in order to meet the challenges brought on by sustainability-related concerns, which as previously stated also include ethical, social, and environmental aspects. Through these implementations they will be able to attract a consumer who is conscious of moral and social issues, also known as “value-driven”, and who, thanks to his decision-making power, represents the real protagonist in the activation of the circle of responsibility that will enable an organization to progress towards an ethical and sustainable change. Thus, moral responsibility for corporate sustainability becomes a crucial component of differentiation and competitive advantage.

1.3 Green development of Made in Italy and Made in China

In the perspective of today's extremely globalized world, most companies tend to have exploitative attitudes towards the environment, resources, and even workers, without considering the consequences that these actions could arise. Fortunately, in recent years, they have understood that their survival and success depend not only on the achievement of economic results, but also on the fulfillment of social objectives linked to ethical factors and collective well-being. Therefore, in defining their strategies and business models, organizations have begun to take into consideration the needs of all its stakeholders from suppliers to employees, from consumers to the community, and all operators in the supply chain who are directly or indirectly influenced by its actions.

The textile and fashion industry has undoubtedly been the sector most affected by the changes caused by economic globalization which has fueled a tendency to make profit at the expense of ethical and social responsibility issues. This situation is primarily the result of competitors entering global markets, such as the Chinese economy, which has posed a significant obstacle in the production and development of the Made in Italy sector by dedicating the majority of its resources to achieving strong visibility while ignoring the quality of the product. On the other hand, however, there are new sustainable development prospects that can lead enterprises operating in the fashion sector to increase the trust and loyalty of consumers to the brand. To move towards a more sustainable textile production, it is therefore necessary to consider four important aspects:

- eliminate environmental risks
- minimize pollution and waste
- achieve an efficient use of resources
- increase the traceability of the materials used for production

In this regard, many companies have quickly replied to these emergencies by integrating different systems to control, measure and reduce these environmental features.

Italian businesses are seizing this opportunity by concentrating their value proposition on the idea of social and environmental sustainability, creating departments dedicated for CSR and providing consumers with high quality goods made from eco-friendly materials. However, most enterprises are unable to communicate and convey the

commitment they have made to society and the environment, missing out the chance to cultivate brand loyalty among consumers. Others, on the other hand, take advantage of the visibility that result from the rising attention paid to these concerns by maximizing the competitive advantages. Indeed, organizations should not underestimate that in international markets there has been an increase in the number of value driven consumers, attentive to environmental and ethical concerns, who choose quality and durable products over short-term ones.

The Italian fashion sector is traditionally organized in industrial districts characterized by many small and medium-sized enterprises (SMEs), alongside SMEs there are also many multinational groups operating in Italy, making the fashion system a highly global competitive sector with constant changes. In a global market where compliance with sustainability requirements is highly valued, Italy is not only one of the countries producing the best fashion in the world, but it is also the only Western nation with production chains that follow the entire processes from raw materials to finished good without relocating manufacturing to other countries. Furthermore, the Made in Italy sector is committed to a sustainable development which foresees the need to attract conscious consumers, offering products with an excellent quality-price and to communicate its history transparently, highlighting its derivation and the uniqueness of raw materials. To be in line with the demands of the international market and maintain an adequate competitive advantage, in the textile sector was promoted an important initiative which refers to a roadmap towards sustainability. Through these programs aimed at reaching ethical and sustainable fashion, Italy is committed to achieving the objectives of the 2030 Agenda, a program introduced for the first time in 2015 during the United Nations Summit on Sustainable Development in New York, which aims to solve a whole socio-environmental and economic problems concerning both developed and developing countries.

The 2030 Agenda aims to overcome two important challenges. The first concerns the “leave no one behind” commitment, that is, offering adequate services and aid to disadvantaged individuals to guarantee them social protection. In this regard, the United Nations recognizing the dignity of every individual is committed to those who face greater

difficulties, literally “*to reach the furthest behind first*”.⁹ The second challenge aims at achieving 17 Sustainable Development Goals (SDGs)¹⁰, which will have to be accomplished in the period 2016-2030 involving both the entire United Nations system, the civil society, and the private sector. In summary, the main purpose of the 2030 Agenda for sustainable development is, in fact, to put an end to the problem of hunger and poverty in the world, to eliminate inequalities, to promote peace and social justice, to defend human rights and gender equality, strengthen the female figure, ensure environmental well-being, economic growth and better working conditions.¹¹

In this regard, in 2012 the National Chamber of Italian Fashion (CNMI) published the “*Manifesto for the sustainability in Italian Fashion*”¹² with the aim of proposing a set of rules that all companies operating in the sector should follow to pursue responsible and ecological development. The manifesto proves that Made in Italy, and the fashion system in general, must take into account the rising interest in concerns relating to social and environmental responsibility, also establishing the possible combination between the notions of fashion, Made in Italy, and sustainability. Additionally, it shows how sensitive the Italian sector is to the concept of sustainability, perceiving it as a real chance to retain and improve the competitiveness of Made in Italy items. The document outlines ten principles that every Italian fashion company committed to sustainability should adhere to, they analyze each stage of an industry’s value chain and finally suggest a management system that aims to continuously improve corporate performance and ethical behaviors, transparent communication, and support training and awareness programs regarding environmental issues for employees and consumers.

The first point concerns the promotion of well-designed qualitative products capable of lasting for a long time and minimizing the negative impact on ecosystems; the

⁹ United Nations. (2015). Transforming our world. The 2030 Agenda for Sustainable Development. *United Nations Digital Library*, p.5. <https://digitallibrary.un.org> (accessed on 20 June 2022, 17:30).

¹⁰ United Nations. (2015). *Sustainable Development Goals*. <https://sdgs.un.org/goals> (accessed on 20 June 2022, 17:00).

¹¹ Ivi p.4.

¹² National Chamber of Italian Fashion. (2012). *Manifesto for the sustainability in Italian Fashion*. https://www.cameramoda.it/media/pdf/manifesto_sostenibilita_en.pdf (accessed on 20 June 2022, 18:00).

second issue refers to the selection of raw materials, which should have high environmental and social value; next there are the processing activities of raw materials and production processes, where it is required to reduce the effects on the environment and society; then are taken into consideration the elements of distribution, marketing and sales, including sustainability standards to comply with; the fifth point deals with management systems that are intended to continuously improve company performance, as well as the fashion and national economic system for which it is asked to support one's own territory and Made in Italy products; below are discussed the concepts of business ethics that require the integration of universal values in the brand, developing a transparency process that allows to transparently communicate the environmental commitment to all stakeholders; the ninth aspect concerns education, in order to promote ethics and sustainability among consumers and all other participants; finally the last principle is to “*make the Manifesto come alive*”¹³, which refers to promoting the adherence to the aforementioned guiding principles to consumers, collaborators, suppliers, and local communities. As a matter of fact, Made in Italy fashion is moving toward a more responsible attitude and choosing to make more sustainable decisions to meet the demands of an increasing number of citizens and consumers. The increased interest in business ethics is currently a very important topic that has attracted great attention from consumers, the media, and companies themselves.

On the other hand, in order to adequately address the issue of Made in China's sustainable development, it is first important to clarify China's position in the textile and clothing industry (T&A). According to the World Trade Statistical Review¹⁴ released by the World Trade Organization (WTO), China's textile and apparel exports accounted for respectively 37% and 36% of world T&A exports in 2016. In fact, Chinese imports have been more prevalent in recent decades on the global market, and their success is largely attributed to their competitive reduced prices. Considering this, the clothing industry is

¹³ Ivi, p.6.

¹⁴ World Trade Organization. (2017). *World trade statistical review 2017*. As cited in Yang N., & Ha-Brookshire J.E. (2019). Truly sustainable or not? An exploratory assessment of sustainability capability of textile and apparel corporations in China from the moral responsibility perspective. *Fash Text*, 6 (15). <https://doi.org/10.1186/s40691-019-0172-6> (accessed on 22 June 2022, 11:00).

undoubtedly the one most affected by Made in China products. For instance, 30% of the clothing imported into Italy each year is of Chinese origin, and as a result, there have been several discussions about the composition of Chinese clothes, including the idea that are of lower quality compared to national ones and made with toxic and harmful materials.

China, being the largest market and manufacturing base for fashion plays a vital role in developing the green growth of the industry. However, although the demands for sustainable development are putting more pressure on the Chinese fashion sector, the idea of “sustainable fashion” is still relatively new. Moreover, in order to deal with the sustainability dilemma and the expanding customer expectations for more sustainable fashion that is aware of ethical and environmental concerns, the People’s Republic of China, however, has begun to recognize the gravity of these attitudes and, at the beginning of the new century, has adopted specific laws to protect the quality of products, such as the “*Product quality law of the People’s Republic of China*”¹⁵ which regulates the requirements and obligations of manufacturers, suppliers and retailers. It is widely acknowledged that the fashion business is inherently anti-ecological since products are essentially made with the assumption that they would be discarded before they have completed their life cycle. For this reason, since the textile and clothing industry is one of China’s most profitable businesses and provides nearly half of the textile fibers used by many of the most well-known fashion chains, China has begun to concentrate on improving the quality and safety of its fashion items as a strategic advantage. Therefore, with the aim of re-evaluating Made in China and promoting eco-sustainable development within fashion brands, in 2012 Redress, an environmental non-governmental organization (NGO) based in Hong Kong that focuses on sustainable fashion and the reduction of its environmental impact in the Asian fashion market, launched in Shanghai for the first time the “The Redress Design Award”¹⁶, the world’s largest eco-design fashion competition. The aim of the program is to inspire new stylists towards a circular fashion system,

¹⁵ Standing Committee of the National People’s Congress. (2018). *Zhonghua renmin gongheguo chanpin zhiliang fa 中华人民共和国产品质量法 (Product Quality Law of the People’s Republic of China)*. (7 January 2019) (China). *Zhongguoren dawang*. <http://www.npc.gov.cn/> (accessed on 22 June 2022, 14:30).

¹⁶Redress Design Award. <https://www.redressdesignaward.com/academy> (accessed on 23 June 2022, 09:30)

minimizing the negative effects on the ecosystem and encouraging designers to create fashionable clothes using factory waste, and above all sending a positive sign that one of the major clothing and textile producing countries is beginning to pay attention not only to the environment in general but also to the fashion industry. As a matter of fact, it is evident that China is increasingly trying to move away from the reputation that has long associated it as a country capable of producing large quantities of cheap and low-quality goods. Therefore, through the implementation of a circular fashion strategy and the creation of eco-sustainable collections, the Chinese textile and apparel sector is attempting to shift from a manufacturing country (Made in China) to a new country of creation (Designed in China) in order to promote itself as a nation with a unique cultural history.

China has started to promote initiatives with the aim to achieve the “14th five-year plan” (“十四五”规划 shisiwu guihua) development of textile industry which sets the goal in 2035 that China’s textile industry will become the main driver of world’s fabric sector and an import leader and promoter of global sustainable fashion¹⁷. Thus, during the 2021 Shengze Fashion Week was officially launched the “China Eastern Silk Market Cup - China Fashion Design Competition”¹⁸, a competition based in Shengze, in the district of Wujiang, in the city of Suzhou focused on the promotion of sustainable fashion, green design and ecological textile fibers. The event was focused on the theme “Better Life in the New Fiber Era” and discussed the research, production, application, and promotion of functional fibers to steer the fashion and clothing industry towards a more sustainable and ecological development. In fact, the improvement of natural textile fibers represents the key to realize new innovative and ecological models through the creation of renewable products allowing the achievement of sustainable fashion. The commission chairman in charge of the competition said that “*the above-mentioned series of fashion activities are rooted in Shengze’s huge textile industry foundation, with culture,*

¹⁷ Zhao X. (2021). New Fibers Era, Good Life 2021 International Sustainable Fashion Forum on Advanced Functional Fibers. *China Textile*, 04, 38-40. [CrossRef] (accessed on 23 June 2022, 10:30).

¹⁸ Zhao F. (2018). New development of the industry with sustainable Chinese textile culture A series of fashion events such as “China Eastern Silk Market Cup · China Fashion Design Competition” will come to Shengze in October. *China Textile*, 09,50-51. [CrossRef] (accessed on 23 June 2022, 10:45).

*design, fashion and green as the core, aiming to strengthen a new label for the era - Culture Shengze - Fashion Shengze*¹⁹. In fact, the event focused entirely on the sustainable development of fibers trying to direct businesses operating in the textile and clothing sector to improve and innovate their production processes to promote an ecological transformation. In 2017, Shengze textile industry's market transaction volume reached 117.3 billion yuan, exceeding 100 billion yuan for five consecutive years. Today, after more than 30 years of development, it has become the main production, distribution, and export base of silk and natural fiber textiles in China and even in the world. This increasing success is given by the fact that in recent years Shengze has played a role of great importance in achieving sustainable progress by promoting the creation of a responsible system of research, development, and production focused on the examination and implementation of environmentally friendly raw materials, eco-design, and ecologically recycling processes.

These initiatives, which place a greater emphasis on ethical and sustainable matters, represent a positive signal regarding China's commitment to developing higher quality products, particularly in the clothing and textiles sector. It can therefore be assumed that China is genuinely attempting to replace its unsustainable habits with other greener ones in order to reevaluate both the Made in China label and to demonstrate that it is becoming more aware of sustainable issues. In fact, even in China, the concept of eco-friendly fashion and the methods and strategies based on the recycling of used and discarded clothing are becoming increasingly popular.

In conclusion, the adoption of a green economy can create new opportunities from a social and economic perspective in addition to the environmental and ecological benefits previously mentioned in the previous chapter. Therefore, in order to increase their economic potential and corporate performance, to meet the demands of value-driven consumers, to satisfy their goals in terms of environmental and social aspects, both the Made in Italy and Made in China sectors are investing in the research and use of renewable materials by leading their production processes towards sustainable development.

¹⁹ Ivi, p.50.

1.4 Purchasing habits of the textile and clothing industry

In the final section of this first chapter, it will be examined how purchasing habits in the textile and clothing industry has evolved, revealing how customers' perspectives and attitudes on sustainability and ethics have changed.

Even though this shift towards a more sustainable consumption is still today a phenomenon that is not easy to accomplish both for consumers and for fashion industry, it may still be possible if both parties are committed to maintaining a more ethical behavior by supporting sustainable fashion practices. Clothing sales and consequently purchases are constantly rising, and it appears that the average individual now buys about 60% more garments each year and uses them less frequently compared to 15 years ago. Thus, the sentence “*today's trends are tomorrow's trash*”²⁰ is useful to keep in mind the amount of waste we continue to generate despite the growing development of a trend towards a circular economy and recycling of clothes. Nevertheless, the growing attention and concern linked to ecology issues in terms of social and moral responsibility has led to a transition from the purchasing and consumption model that has characterized modern society since the 1990s to a more ethical and conscious one, at the center of which there is a value driven consumer more focused on environmental and social concerns.

In recent decades the discussion regarding the ethics of consumption has particularly increased, however it is not easy to state who can be defined as a real ethical consumer, generally they are described as those who believe that their purchasing attitude has a significant impact on the environment and on the rest of the community. Despite this progressive change, most consumers today still have a certain moral uncertainty, on the one hand, their moral obligation motivates them to consider the social and environmental costs of a consumerist society, which in turn encourages them to adopt more responsible and sustainable behaviors. On the other hand, their desire to follow new trends leads them to not consider the ethical aspects. Indeed, for most consumers, purchasing goods from large clothing industries is often easier in terms of both time and

²⁰ Remy N., Speelman E., & Swartz S. (2016). *Style that's sustainable: A new fast-fashion formula*. McKinsey & Company. As cited in Cobbing M., & Vicaire Y. (2016). *Timeout for fast fashion*, *Greenpeace*. <https://www.greenpeace.org/international/> (accessed on 26 June 2022, 15:30).

money. As a result, even those firms that would like to incorporate ethics and sustainability as core business models face huge competition that is difficult to manage, consisting of both companies aiming for low prices and non-ecological quality materials at the expense of environmental consequences and the growing number of those seeking to align themselves with ethical fashion.

The main issue with the analysis of consumers' attitudes towards sustainable purchasing is that, despite their strong convictions and motivations, they nevertheless struggle to translate their ethical values into concrete actions by adopting an anti-consumption position. Therefore, even when consumers are willing to look for and buy products that are truly made in accordance with ethical standards, such as with ecological natural textile fibers, the success of the so-called *fast-fashion* industry is only enhanced by consumers' constant search for originality and desire to be "in step with the times". This type of attitude is particularly prevalent in the context of fast fashion, where consumers are less aware of their purchases and are simply attracted by the items offered. The consumption of fashionable items is certainly influenced by several factors, involving the human desire to create one's own identity, the price, the current trends, and the image of the brand, which in most cases exceed the ethical or sustainable aspects by feeding the gap between the desire to buy and the efforts to limit the environmental impact of such consumption. In this perspective, through an understanding of the connection between fast fashion and environmental sustainability, the purpose and function of sustainable fashion demonstrates the possibility of making an ethical purchase decision while also satisfying consumer's needs, representing the key to enacting sustainable change.

To better understand and examine the various attitudes of buyers towards ethical and sustainable fashion purchases it will be useful to classify fashion consumers into three groups, the "auto consumers", interested in self-gratifying needs, the "social consumers", interested in the social image and the "sacrificed consumers", who strive to reduce their environmental impact.²¹ In this categorization the most attentive consumer is defined by the term "*Lohas*" (lifestyle of health and sustainability), which refers to an increasingly

²¹ McNeill L., & Moore R. (2015). Sustainable fashion consumption and the fast fashion conundrum: fashionable consumers and attitudes to sustainability in clothing choice. *International Journal of Consumer Studies*, 39 (3), 212-222. <https://doi.org/10.1111/ijcs.12169> (accessed on 28 June 2022, 18:00).

popular trend, especially among the last generations who are more likely to make responsible choices. This notion is concerned with the use of goods and resources involving a new textile economy that is characterized by the implementation of renewable energies and recycling of fabrics. This category represents a type of committed consumer who actively pursues personal well-being considering the benefits of a product, and preferring brands that not only preserve the environment but also the entire community.

Since different consumer groups perceive the purchase of clothes in contrasting ways, companies must therefore be able to implement various marketing strategies to promote their sustainable products according to their target audience. In this regard, to fully comprehend the variety of potential consumption behaviors in the fashion industry, it is crucial to take into account the type of consumer in terms of both its attitudes toward environmental and social sustainability and its typical purchasing habits. Moreover, in a context characterized by an increasing concern about the development of a greener fashion industry, it is useful to consider consumer's propensity towards the purchase of ecologically and socially sustainable products and services. Nowadays, most of consumers tend to place greater emphasis on the quality of life, ethical aspects, and the origin of fashion products, therefore, sustainability has been recognized as an important new driver in consumer purchasing decisions. This implies that fashion brands should commit by developing business models based on ethical, sustainable, and circular fashion to convey their marketing strategies and production processes more transparently to engage and retain their customers. However, due to a lack of clear and transparent information and awareness from industrial players, consumers are still partially hindered from purchasing according to ethical and sustainable principles, being not fully conscious of the impacts of consumption on the society and on the environment.

The issues related to the ecosystem and to the production of goods represent a new important factor of influence both in the consumers' purchasing decisions and in the adoption by fashion companies of environmental strategies and initiatives in their supply chain. This improvement also allows enterprises to exploit the transparency and sustainability of their products as a competitive advantage to improve their financial performance and attract and retain a more aware and responsible type of consumers in terms of ecology and ethics. Moreover, in a market where customer satisfaction is the main objective to aim for, it can therefore be assumed that the value-oriented consumer,

thanks to his decision-making power, has the influence of guiding fashion brands towards environmentally and socially sustainable choices.

Finally, from this first introduction chapter, it clearly emerges that there is a great social and environmental need for a more informed and responsible offer of goods and services, of which the fashion industry would greatly benefit by incorporating the principle of sustainability into its business strategy. Nowadays, environmental sustainability represents a very significant cultural phenomenon which influences the need of the global fashion industry to be distinctive and innovative. In fact, the adoption of a green and ecological business model can help fashion companies to increase their capacity for originality and seek new sources of value and can also be a useful tool for innovation and differentiation.

However, in an era characterized by great changes and developments in terms of ecology, the concern that arises is whether this growth in ethical and responsible consumption reflects a momentary trend or really represents the beginning of a change in social mentality. Based on this assumption, in the following chapter it will be analyzed how enterprises, with a specific focus on Italian and Chinese ones, communicate their environmental commitment and implement strategic models that concretely leads to a sustainable growth.

CHAPTER II

SUSTAINABLE BUSINESS MODELS

2.1 Sustainability as a competitive advantage

Having addressed in the first chapter the origins and evolution of the general concept of sustainability up to its extension in the textile and clothing industry by analyzing both the attitudes of consumers and of Italian and Chinese enterprises towards the development of a more ecological fashion, in this second chapter the focus will be on the innovative actions and strategies undertaken by fashion companies to implement a circular economy in order to address the issues related to environmental, social and ethical sustainability.

In recent years, the great pressure and increasing demand for ecological products has led the evolution of new sustainable business models that have involved all the different industrial sectors, and especially the fashion industry. The global fashion industry has been required to answer for its responsibilities regarding the environmental damages caused by textile processing under the pressure of environmental movements and non-governmental organizations, such as Greenpeace, who in 2011 launched the “*Detox*” campaign ²² and urged fashion brands to remove toxic chemicals from their textile production chains. This pressure is guiding the industry toward a path based on an integrated sustainability model, in which are taken into consideration the environmental aspects as well as the social responsibilities of the company.

Nowadays, as previously mentioned, the growing attention and concern towards environmental protection has led both emerging and existing corporations to search for

²² Greenpeace. (2011). *Detox my fashion*. <https://www.greenpeace.org> (accessed on 17 July 2022, 11:00).

new innovative business models to increase their competitive advantage while respecting society and avoiding negative effects on the ecosystem. To address this issue, even though a significant gap remains between the desire to pursue a green model and its effective implementation and realization, numerous business approaches have emerged, among which the trend towards a circular and sharing economy, the decrease in consumption, the recycling and reuse of materials, and the reduction of environmental impacts. Therefore, this chapter will describe innovative sustainable business models and strategies with a focus on the fashion industry in order to show that sustainability represent a competitive advantage that can enhance business performances on an economic, social, and environmental level.

First, it is important to clarify the meaning of business model (BM). In most cases, a BM is understood as “*the logic of how an organization creates, supplies, and captures value*”²³. As a result, a business model must not only enable a company to capture some value by making a profit, but also, through its innovation, provide a source of competitive advantage and represent a strategic tool for sustainable development. In recent years, as the foundations of current BMs are continuously developing due to the trends and new challenges raised by sustainability, the implementation of innovative strategies is becoming increasingly complex in enabling companies to adapt and succeed. The main reason is related to the fact that most firms have a structured approach to innovation that does not allow them to innovate quickly, better and at low cost. Moreover, the rapid and constant change of market, competitiveness, and technology has meant that products life cycle have been reduced, stimulating companies to launch new products faster to satisfy the huge demands of consumers without taking into consideration the environmental consequences of this continuous production and consumption. The impact of this accelerated change has also been amplified by the rapid growth of emerging markets, like India and China. For instance, the Chinese middle class, which is already composed of 39.1 million people (3.1% of the population), has been among the fastest growing in the world and of course is expected to continue to grow by consequently also increasing the

²³ Osterwalder A., & Pigneur Y. (2010). *Business Model Generation*. John Wiley & Sons., Inc., Hoboken, New Jersey (USA).

number of consumers around the world, thus exerting greater pressure on existing resources.

Therefore, the adoption of an innovative approach aimed at a sustainable business model (SBM) helps organizations understand how to create value not only for their customers but also for all other stakeholders, incorporating social and environmental benefits. Indeed, SBM is defined as “*a business model that creates competitive advantage through superior customer value and contributes to the sustainable development of the company and society*”²⁴. As a result, SBMs are now understood to be BMs that may gain a competitive edge by offering customers exceptional value while also promoting the long-term growth of their organizations and the local community.

The value created and provided includes an *economic value*, which refers to an economic growth in terms of profitability and long-term stability of the company; a *social value* that concerns social justice, equality, poverty reduction and consequently the development of the well-being of the whole community and of the health and safety of working conditions; and finally also an *environmental value* that guarantees the use of renewable resources, creating positive benefits for the environment by assuring its safety. Therefore, since the success of the SBM depends on the quality of the interaction between the various influential market players such as consumers, investors, and business partners, all of whom play an essential role in its promotion, the innovation of the sustainable business model (SBMI) includes not only the development and implementation of new SBMs, but also an adequate and concrete communication between the innovative enterprise and its market. In summary, SBM therefore incorporates an approach defined as a triple bottom line (people, planet, and profit) taking into consideration the different needs and interests of the interested parties, which are essential to guide and implement corporate innovation towards sustainability, placing it at the center of the organization’s objectives in such a way as to consider it as a real competitive advantage.

²⁴ Lüdeke-Freund, F. (2010). Towards a Conceptual Framework of ‘Business Models for Sustainability’. RSCP-EMU Conference, Delft, pp. 1-28. As cited in Biloslavo R., Bagnoli C., Massaro M., & Cosentino A. (2020). Business model transformation toward sustainability: the impact of legitimation. *Management Decision*, 58 (8), 1643-1662. <https://doi.org/10.1108/MD-09-2019-1296> (accessed on 19 July 2022, 12:30).

To understand how to pursue a sustainable development path, it is appropriate to refer to the concept of *shared value* developed by Porter and Kramer (Porter M. E., & Kramer M. R., 2011.), defined as the value deriving from company practices and policies that strengthen competitiveness and at the same time create economic and social value for the community in which they operate. In fact, the article “Creating Shared Value”²⁵ stated that companies to increase their competitive advantage can go beyond corporate social responsibility by including within of their strategies and business models social and environmental considerations in such a way as to consider the challenges of society as a business opportunity. In this regard, companies can create shared value in three ways:

- **redesigning products and markets**, which allows businesses to better serve current markets while also breaking into new ones through innovation to address societal requirements.
- **redefining productivity along the value chain**, businesses may raise input quality, quantity, and cost while still being mindful of the environment and advancing socioeconomic development.
- **promoting the development of local clusters**, which are geographic concentrations of related businesses, such as suppliers, trade groups, and academic institutions, and which play a key role in fostering innovation, productivity, and competitiveness.

Several enterprises have already begun to implement initiatives to create shared value in such a way as to unify economic-financial performance with social progress with the aim not only of not generating negative impacts on the society, but of actively contributing to its development, implementing strategies and business models that incorporate ethical and sustainable values. Therefore, shared value strategies recognize organizations a new role, going beyond corporate social responsibility models, implying opportunities for innovation not only for the company but also for the entire community and for social progress. Indeed, as stated in the above-mentioned article, the creation of shared value (CSV) should prevail over corporate social responsibility (CSR) in guiding

²⁵ Porter M. E., & Kramer M. R. (2011). Creating Shared Value. *Harvard Business Review*, 89, 62–77. <http://hbr.org/2011/01/the-big-idea-creating-shared-value/ar/1> (accessed on 22 July 2022, 11:40).

the investments made by companies in the communities in which they operate. In fact, as indicated in the below Figure 4, CSR activities are mainly focused on “doing good” to improve the company’s reputation due to external social pressures, making these operations occasional and difficult to maintain in the long term, while the CSV is functional to the competitive position of the enterprise and to the maximization of its profit, exploiting its specific resources to create economic return through the creation of social value. Thus, although not all social problems can be solved thanks to solutions based on shared value, however, it allows companies to use their resources, skills, and abilities to promote and improve social progress.



Fig.4 How Shared Value differs from Corporate Social Responsibility

Source: Porter M. E., & Kramer M. R. (2011)

Organizations that adopt social responsibility policies, in addition to having ethical response towards the community and society, can also obtain an advantage over their competitors given the fact that there is a positive correlation between the integration of sustainability in corporate business models and the financial results of a company. Sustainable management therefore generates directly financial benefits but also determines an increase in the reputation of the company and in the value of the brand thanks to the strengthening of the relationship with its customers.

The competitive advantages and benefits deriving from sustainable strategies can be outlined in different macro-categories consisting of:

- **risk reduction:** by adhering to all workplace safety and pollution prevention regulations, the business is able to lower the risks involved in manufacturing processes, reducing the possibility of disastrous and scandalous occurrences that might damage its reputation.
- **cost reduction:** in line with the previous point, the corporation may save expenses associated with a potential loss of market share brought on by a scandal or other calamity by avoiding risks. Additionally, long-term expenses may be decreased by funding the use of renewable energies, which can also enhance the reputation of the business or brand.
- **growth of company's reputation and consumer loyalty:** the market has recently focused on shifting customer behavior and habits toward eco-sustainable products or goods made by businesses that use socially responsible business practices. Therefore, the business that effectively conveys its commitment to the environment will have an edge over its competitors and in its relationships with stakeholders.
- **better efficiency and effectiveness in the management of work and human resources:** a sustainable approach that prioritizes good working conditions, reduced environmental impact, care for raw materials and resource waste, respect for social values and human rights, and attention to these factors helps to boost productivity and cut waste, which has advantages in terms of saving time and money. As a result, fostering a better, safer, and more productive workplace frequently translates into improved employment and increased worker productivity, delivering a financial return for the business that spent in staff training and lowering the expenses of hiring new employees.
- **easier access to financial credits:** investors and financial intermediaries are paying increasing attention to ethical corporate responsibility; in fact, financial institutions evaluate creditworthiness in a way that is inversely related to risk and, thus, directly related to social and ecological criteria.

Nevertheless, on the other hand, sustainable management generates many costs which, in the short term, could far exceed the economic returns, for example training of personnel towards sustainable practices, investments in more expensive ecological production factors and raw materials. However, the firm will have an advantage in the short term if it is able to act as a *first mover* as regards the development of an innovative

sustainable product or a new production technology. Indeed, technology is taking a significant importance in terms of transparency of the manufacture chain, especially thanks to new production models aimed at eliminating polluting processes, consequently, it is of fundamental importance for companies to include new technological innovations in the production processes to identify current social, environmental, and economic changes to transform the patterns of production, consumption and interaction between people and the surrounding environment, anticipating the needs of the consumer and the economic system.

Sustainability must not be perceived by companies as a cost or a restriction, but rather as an opportunity to reach a further source of competitive advantage and distinction by ensuring that the adoption of more responsible behaviors and practices that guarantee a lower environmental impact will be rewarded both by the market and consumers. Moreover, an enterprise able to carry out its production in compliance with environmental standards, adopting eco-sustainable practices and ensuring adequate working conditions and decent wages for its workers, will consequently improve its reputation by increasing the value and image of the brand. Therefore, it is necessary to pursue the search for an innovation that is both sustainable and ecological, directing investments towards a development that focus on environmental, ethical, and sustainable aspects.

In conclusion, although there are still many fashion companies that do not consider environmental issues, there is growing interest in sustainability among businesses in the sector. In fact, there are many enterprises that adhere to environmental campaigns or specific practices to reduce resource waste, consumption, and ecological impacts. The new environmental initiatives are therefore intended to modify their business and, in turn, their goods from an ecological and fair-trade point of view in order to enhance the company's ethical reputation by lowering energy and water usage, waste production, and emissions.

After demonstrating that the adoption of a sustainable approach within the corporate operating models generally ensures benefits and a significant competitive advantage, in the next paragraphs will be examined the strategies applied by the fashion industry to implement a sustainable business model.

2.2 Innovative strategies to pursue a green fashion

The fashion industry is used to adopt a linear economic system, mainly based on the “*take-make-waste*” paradigm, which provides excessive use and exploitation of natural resources, an unnecessary consumption of not reusable products generally characterized by a short life cycle that have a negative impact on the environment. The adoption of sustainable procedures and solutions as the first driver of innovation has made it possible to question the entire traditional economic system; therefore, the redefinition of the textile and clothing industry’s business model is the first fundamental step towards an ecological development.

The ways in which the fashion industries are trying to face this sustainable transformation can be summarized in some macro-categories that represent the basis for the innovation of their business models:

- Orientation of fashion consumers towards greater attention and awareness of ecological and environmental issues
- Implementation of a circular economy
- Integration of corporate social responsibility practices throughout the fashion system
- Increase of a sharing economy among consumers
- Awareness of the opportunities arising from the adoption of new technologies

In summary, innovation through sustainability represents an important driver and source of value for business development and corporate growth. In the chapters that follow, it will be examined how the diffusion of sustainability occurs in relation to fashion enterprises through different practices and techniques that are mainly based on the analysis and redesign of material flows along the value chain. For instance, to increase the loyalty of their value-driven consumers and be able to attract new ones, among the major trends are the creation and promotion of so-called “sustainable collections”, made with new fair trade certified organic materials, and the adoption of a circular economy, which is characterized by the use of recycled products and used clothing.

2.2.1 3R of Circular Economy

The current fashion system, which only recycles or reuses 20% of clothing, is defined by a flow that ignores its exploitation of resources, its consequences on the environment, its pollution of the atmosphere, and its negative impact on the whole society.

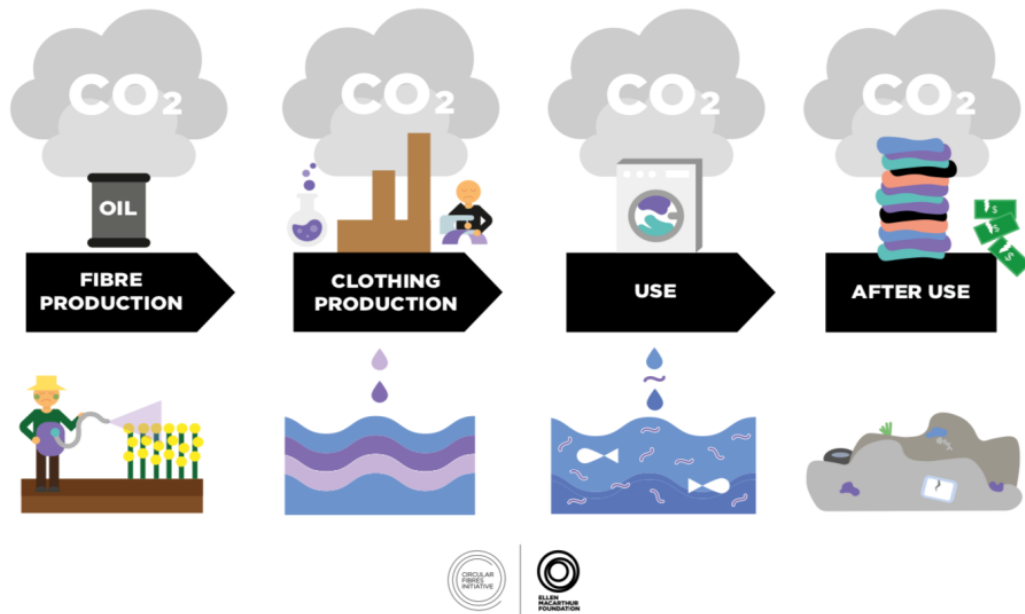


Fig. 5 A New Textiles Economy: Redesigning Fashion's Future.

Source: Ellen MacArthur Foundation (2017)

Therefore, the challenge for fashion companies is to create business models capable of developing a value proposition aimed at achieving an economic, social, and environmental value, moving from a linear economic system to one that can regenerate itself, defined as *circular economy*.

According to the definition provided by Ellen MacArthur Foundation the Circular Economy is “a systems solutions framework that tackles global challenges like climate change, biodiversity loss, waste, and pollution. It is based on three principles: eliminate waste and pollution, circulate products and materials, and regenerate nature”²⁶.

²⁶ Ellen MacArthur Foundation. *What is a circular economy?* <https://ellenmacarthurfoundation.org/> (accessed on 28 July 2022, 10:40)

Basically, it represents a production system based on sustainable and efficient processes, capable of maintaining and extending products life cycle by producing long lasting goods, reducing the level of waste generated and consequently their environmental impact. The implementation of a circular economic system has the aim of guaranteeing the effective adoption of a sustainable approach along the entire supply chain to allow to recover, recycle, and reinvent the product giving it a new purpose through the efficient use of natural resources. Furthermore, according to the above-mentioned foundation to adopt a circular approach effectively and efficiently, five basic criteria must be followed:

1. *Eco-design*: which bases product design on a product's life cycle.
2. *Modularity and versatility*: making items able to adapt in response to changes in external situations.
3. *Renewable energies*: discard fossil sources in favor of renewable ones.
4. *Ecosystem approach*: create a business culture that is aware of the interconnection of all ecosystems.
5. *Recovery of materials*: choose raw materials that come from chains of material recovery.

Essentially, sustainable business models based on a circular economy implemented by fashion industries must therefore consider and follow the three fundamental principles of sustainability: *Reduce, Reuse* and *Recycle* (3R).

Reduce, is the practice of producing goods and services with a reduced use of natural resources while taking into account the production procedures, product disposal, and the use of raw materials with a lower environmental effect, such as organic or recycled materials. In terms of the fashion industry, energy savings mostly refer to the reduction of expenses associated with the usage of water resources required for the manufacturing of clothing.

Reuse, which refers to the revaluation of a product to extend its usable life cycle rather than discarding it. The recovery and resuscitation of second-hand, vintage, and luxury items through their sale, allowing them to be re-placed on the market for new customers, is a developing phenomenon in the fashion industry. The principle of reuse

makes it possible to recycle clothing and accessories that would otherwise be thrown away, cut prices and expenses for buying new items, utilize fewer raw materials, and produce less trash.

Recycle, which concerns all the actions taken to properly dispose of waste so that it may be transformed into new resources to be included in the manufacturing chain. Regarding the recycling of materials, there are those defined as post-consumer, which are used clothes correctly disposed by customers that are recovered and transformed at the end of their life cycle, and pre-consumer ones that refer mainly to production waste that most companies are striving to both reduce and recover.

In summary, these 3R are not independent from each other but they combine in such a way as to favor the development of effective and efficient sustainable and innovative business models. These sustainable differentiation strategies are part of a market defined as “fair trade” characterized by a strong social and ethical connotation and a particular attention to environmental issues aimed at reducing the exploitation of natural resources and guaranteeing nondiscriminatory and safe working conditions.

The adoption of a more sustainable circular economic system therefore represents the basis from which to start to develop innovative sustainable business models. In the following sub-chapters will be introduced some of the most effective and profitable business strategies implemented by fashion companies, including the Resale and the Recycling model, based on the idea of a recovering and waste-free production cycle; the Co-creation model, capable of provide a more efficient use of resources through cooperation and transparency; and the Eco-Design trend, which is essential to create a product that include sustainable and environmental values.

2.2.2 *Resale & Recycle model*

The **Resale** model involves the purchase and sale of used clothing, according to which clients return the used items to the reference firm, which then resells them as second-hand goods through online platforms that enable the immediate interaction between buyer and seller.

This circular and eco-sustainable system makes it possible to extend the lifecycle of a product by giving it a second chance, to generate value both for the original owner who returns the goods and receives a remuneration and for the new buyer who has the opportunity to pay less and make a sustainable choice, to increase the value of the brand image by presenting itself as innovative and green, and to expand towards new markets and a new type of consumer interested both in the themes of recycling and reuse of materials and in vintage and second hand clothing. In recent years, there has been a growing acceleration in the adoption of the economic model of resale which has made it possible to significantly reduce the negative impacts of the fashion sector on the environment and on society, in fact, precisely through the improvement of increasingly aware consumers and second-hand markets it is possible to lead the fashion industry towards a more sustainable development.

The phenomenon of resale is constantly growing and developing representing a real competitive advantage, in fact, according to the survey carried out by ThreadUp²⁷, it is estimated that by 2026 the global second-hand clothing market will grow by 127% and three times faster than the global apparel market.

²⁷ ThredUp. (2022). *Resale Report*. <https://www.thredup.com/resale/> (accessed on 1st August 2022, 12:00)

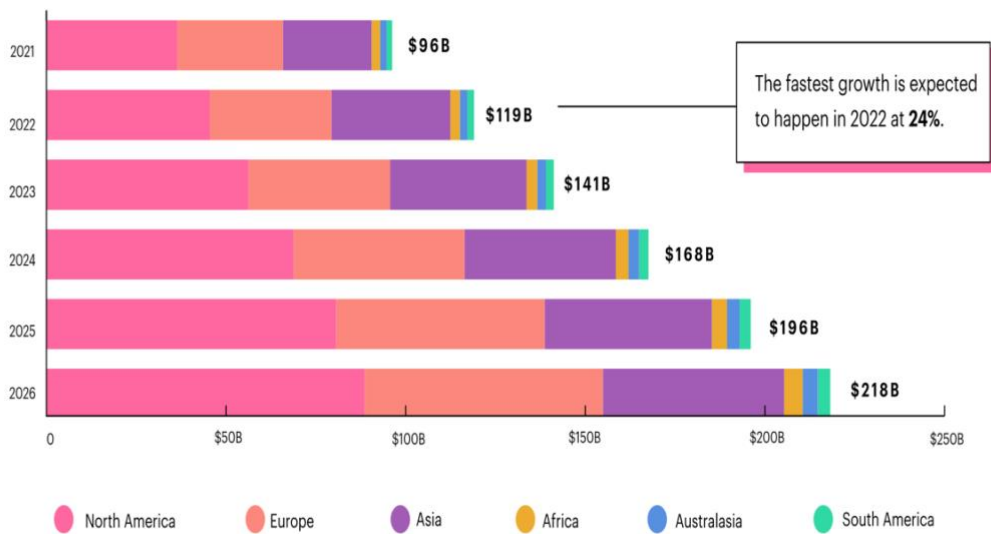


Fig. 6 Global Data 2022 Market Sizing and Growth Estimates

Source: ThredUp (2022).

The second-hand clothing market has involved more customers than any other category, in fact 244 million consumers in 2021 said they wanted to buy used items and 41% say that when they shop for clothing they look for secondhand ones. This trend is especially successful among the new generations, so that 62% of Gen Z (18-24 years old) and Millennials (25-37 years old) state that before purchase a new product they look first for secondhand one, 46% consider the resale value of an apparel item before purchasing it, and 21% of Gen Z would pay more for clothing they know they can resell (ThredUp 2022).

Therefore, resale is a powerful and strategic solution to the waste produced by the fashion industry that enables consumers to increase their purchasing awareness and to fuel their social and environmental responsibility by motivating them to make more responsible choices as a result of the recognition of the negative impact their consumption habits have on the environment.

The **Recycle** model aims to recover value from waste, taking into consideration the three main sources of textile pollution: post-industrial fabrics, which are primarily discarded and wasted cuttings, pre-consumer fabrics, which are goods that have been returned or are still in stock, and post-consumer fabrics, which are used clothes that

cannot be reused. This ecological paradigm involves recycling waste items and turning old products into raw materials that may be reused to make new ones.

The recycling trend has not only been partly adopted by firms operating in the textile and clothing sector such as luxury and fashion brands but has led to the creation of companies entirely based on the recycling model. One of the most successful examples is Freitag, an enterprise born in Switzerland in 1993 and known all over the world thanks to its corporate values based on conscious and intelligent consumption, innovation, ecology and creativity, it produces backpacks, bags and accessories made entirely from old materials, especially of vehicles, such as truck frames, old seat belts, inner tubes and airbags.

To adopt the most efficient sustainable business model, a fashion company must take into consideration not only its internal supply chain, but also the characteristics of its consumer's target. In this regard, according to the Ellen MacArthur Foundation, six different customer profiles have been identified to better define the nature and the different needs of fashion consumers (Figure 7).



Fig.7 Various customer types exist, with different needs from their clothing

Source: Ellen MacArthur Foundation (2017)

The first profile identifies the **Bargain** customer, the one who always looks for the best offers and prices, and who will therefore be especially attracted by the *Resale model* in which he will be able to find quality and durable second-hand items at an affordable price.

The **Stand-out** customer describes those who want to stand out from the crowd. This type of consumers will adapt more to the *Co-creation model*, which allows them to customize the product according to their preferences, making it unique and exclusive.

The **Fitting in** type that considers the fashion garment as an instrument for integrate and belong to a group, the *Resale model* will allow to continuously adapt to the latest fashions and trends.

The **Avoid** customer is not interested in clothes shopping but buys them only for utilitarian purposes. Therefore, he will be more in line with the *Recycle model*, ensuring a long life to the items.

The **Celebrity** character, whose purpose is to look like celebrities, following and imitating their outfits, prefers the *Resale model* to be able to access numerous vintage and second-hand luxury clothes.

Finally, the **Environment**, also known as value-driven consumer, who pays a lot of attention to the ecosystem and try to buy only from ethical and sustainable fashion brands. For this type of profile, although each of these business models is based on sustainable and ecological values, the *Recycling model* based on the principle of creating value from waste it is the most suitable.

Regardless the type of customer, ThredUp has carried out a survey to identify what the typical wardrobe of consumers will be over the next ten years. What emerges from the data is that the Resale is the model with the greatest growth potential, in fact it is expected to grow by 9 points, more than any other sector. It can therefore be assumed that in the future these new business models focused on more ethical and sustainable production and sales processes will represent a large market share compared to traditional ones.

2.2.3 *Co-creation model*

A sustainable company also need to place consumers at the center of its business model since, especially in the world of fashion, they are fundamental in the innovation of projects and strategies of development.

The **Co-creation** model aims at the global integration of sustainability into the business logic by generating value through interaction activities between producers, customers, products or services, and the environment, according to which the needs and demands of customers are transformed into an opportunity to create value, challenging the concept of traditional mass production, and allowing the consumer to create the product and service that they want. The adoption of this innovative model foresees the need for a vertical integrated supply chain, advanced production technology and a skilled workforce. Furthermore, since consumer's purchasing decision and consumption towards environmentally friendly goods is influenced mainly by the level of transparency involved by the company, it is of fundamental importance to clearly communicate the origin of the materials, the manufacturing processes and the level of innovation and development.

In the below diagram (Figure 8) is demonstrated how the value proposition in sustainable businesses must be based on *co-creation*, starting from the establishment of a common communication platform that enables the cooperation of multiple stakeholders to spread ethical and sustainable values along the entire value chain and ends with the disclosure of the production flow starting from raw materials to finished products. Specifically, this interaction takes place by involving customers in the design of goods that are in line with their preferences in order to increase their environmental awareness, for example by encouraging them to refuse leather clothing and packaging made of plastic. After obtaining complete information on raw materials and customer preferences, suppliers update information on sustainable resources and on the development of alternative ones. Producers then carry on production taking into account the protection of the environment and the consequent reduction in the use of natural resources, and finally, retailers supply products in an ecological and economical way.

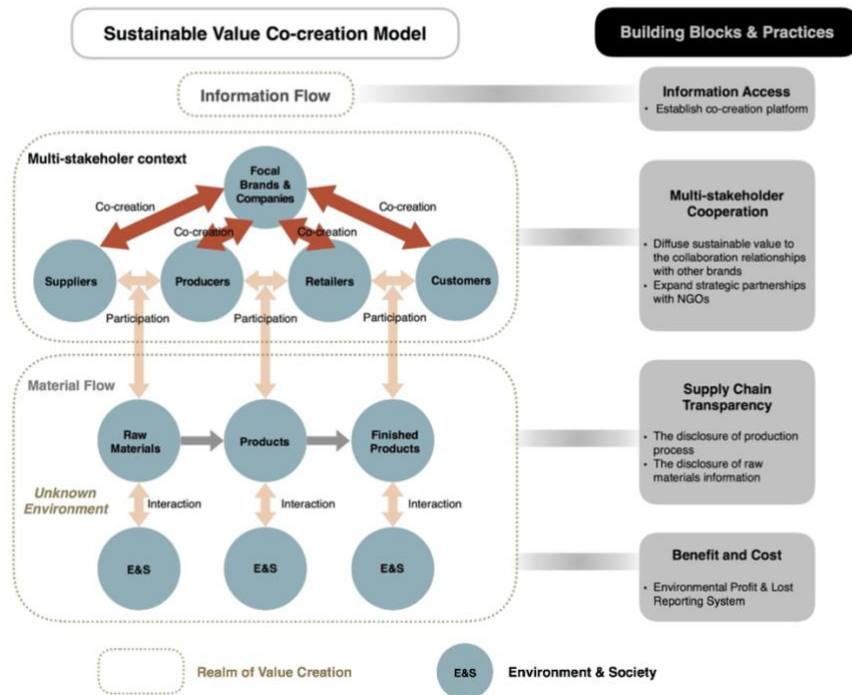


Fig. 8 Sustainable Value Co-creation Mechanism

Source: Yang Y., Han H., & Lee P.K.C. (2017)

By implementing these co-creation models, fashion companies are able to create value through collaboration with all stakeholders, including suppliers, retailers, manufacturers, customers, the environment, and society. In addition, they are able to disseminate sustainable value among collaborators, make their production processes transparent, improve partnership communication, and quickly determine the environmental impact of the entire supply chain.

2.2.4 Eco-Design

The development of issues concerning the adoption of a circular economy and sustainable development in recent years has given the textile and apparel industry an innovative push for the redefinition of its production chains in which the product represents the final stage of the initiatives and strategies applied to adopt a value creation models, like recycling practices, the containment of waste and the elimination of polluting chemicals. Therefore, the production chain of a sustainable organization must be characterized by the use of ecological or recycled materials, by an eco-friendly design created in such a way as to be able to give the item a new use once it reaches the end of its life cycle and transparency regarding the entire production processes.

Eco-design is defined by the International Organization for Standardization (ISO) 14006:2011 standard as “*the incorporation of environmental concerns in the design and development of products with the aim of reducing the impact on the environment during its entire life cycle*”²⁸. Basically, the eco-design implemented during the initial phase of the product development process represents an essential tool for fashion industries that want to create an item that is in all respects sustainable, nevertheless the difficulty lies in being able to employ production practices and techniques that allow the use of resources that at the same time have a lower environmental impact and that meet the main requirements of quality and esthetic. Thus, the biggest challenge is to be able to create a product that can last over time and be recycled and reused, reducing the negative effects on the ecosystem during every phase of its life cycle, from its production to use and finally to disposal. Sustainable design therefore considers not only the product itself but also its entire life cycle (Life Cycle Design), in order to predict the impact that production will have along the entire value chain. The advantages of implementing an eco-design business model can be classified into three macro categories:

- *Environmental benefits*, as a result of reduced environmental impact during product creation and effective enforcement of laws defending the preservation of the environment and its resources.

²⁸ International Organization for Standardization. (2011). *Environmental management systems - Guidelines for incorporating eco-design*. (ISO No. 14006: 2011).

- *Social benefits*, generated by the company's development of a sustainable and environmentally friendly image as a result of its attention to the rising social and ecological sensitivity.
- *Economic benefits*, as a result of improved implementation of resources like raw materials, energy use, and consumption saving techniques.

Several techniques and regulations have been created to include eco-design, such as encouraging the use of eco-friendly materials to minimize negative environmental consequences, decrease materials usage, and enhance recycling processes to improve the management of post-use product waste. Among the most effective strategies for saving energy, substances and natural resources are the Design for Recycling (DfR) which involves the use of materials that increase the recyclability of the entire product or a part of it, and the Design for Disassembly (DfD), which consists in the study of the design of a product that allows, once it reaches the end of its useful life cycle, the separation of its components to facilitate their reuse and renovation.

Instead, a strategy aimed at extending the period of use and longevity of the product and its recycling, is the LCA (Life Cycle Assessment) which combined with eco-design is now used to analyze what are the direct environmental effects of a product during its life cycle to improve its eco-efficiency and resource productivity providing a definitive reduction of environmental impacts. According to the ISO 14040:2006 standard, the life cycle assessment is defined as “*a technique for determining the potential environmental aspects and impacts associated with a product, service or process with a definition of the inputs and outputs of the system, the evaluation of potential environmental impacts associated with these inputs and outputs and the interpretation of the results and the phases of impact relating to the products under study*”²⁹. Life Cycle Assessment (LCA) is therefore an environmental evaluation tool useful to estimate and interpret the environmental impacts of goods, processes and activities representing the basis for sustainable consumption and production. It is a methodology that focuses on the

²⁹ International Organization for Standardization. (2006). *Environmental management – Life cycle assessment – Principles and framework*. (ISO No. 14040: 2006).

entire life cycle of a product, including the extraction of raw materials, production, transport, distribution, usage, reuse and recycling up to disposal, reducing the use of resources and environmental impacts.

The adoption of an eco-design strategy confirms the necessity of developing environmentally friendly goods through the incorporation of sustainable and environmental standards, enhancing their competitive advantage, and allowing to differentiate as a green and ecological enterprise. Therefore, eco-design is able to integrate environmental criteria into the basic needs of the design of a product throughout its life cycle, playing a crucial role for businesses that want to include sustainable and environmental values among the requirements of their production processes.

2.3 Environmental practices of the Italian fashion industry

After introducing the main circular business models and the sustainable strategies applied by fashion industries in order to pursue and achieve an effective green development, this paragraph will analyze which environmental and social sustainability practices are adopted by Italian fashion companies. First and foremost, it is essential to examine the situation of the Italian fashion industry, which has historically been a significant source of revenue, particularly for the textile and apparel sector.

According to the 2022 report by the Confindustria Fashion Study Center for the textile and fashion federation of Italian Fashion System (SMI), in 2021 the Italian textile and clothing sector in terms of exports sees an overall growth of 18.0%, thus reaching 32,4 billion euros, with an increase also in imports activities according to which the sector trade balance goes from 5.8 billion in 2020 to over 10.7 in 2021. Both exports and imports have moved favorably towards the EU and the non-EU countries, in fact, exports grow by 18.9%, while imports of fabrics from non-EU areas rise by 24.8%. Also, in the first quarter of 2022 the production index of the Italian national statistical institute (ISTAT) relating to the textile sector recorded an increase of 34.3% compared to January-March 2021, and the export of Made in Italy fabrics sees a new growth of its 15 main markets, in fact, France and Germany, that are the first and second ones, grew respectively by 41.9% and 52.4%, while the first non-EU market, the US is seeing an increase in exports of 62.0%. With reference to China, the fifth destination and second among non-EU countries, the export of Italian fabrics shows an increase of 49.5%, while as regards the import of Chinese fabrics (30.9% of total) it is grew by 140.7% in the first 3 months of the year.³⁰

Therefore, to maintain constant growth in the Italian textile and clothing sector, it is necessary that the Made in Italy fashion industries concretely implement strategies to meet ethical and environmental requirements with the aim of establishing an effective sustainable supply chain in order to support the continuous changes and unpredictable innovations coming from a constantly growing and expanding market. The

³⁰ Sistema Moda Italia. Federazione tessile e moda. (2021). *Il recupero dell'export di Tessile & Abbigliamento nel 2021*. <https://www.sistemamodaitalia.com/it/press/> (accessed on 26 August 2022, 15:00).

implementation of sustainable practices demonstrates to be a real competitive advantage for Italian enterprises operating in the market as it provides the final product with an added value in terms of quality and ethical responsibility, in addition to the already existing one, appreciated globally for Made in Italy manufacturing products, which is thus further recognized and strengthened. The ethical and environmental strategy of Made in Italy therefore defines the objectives to be achieved in order to create a product that reflects concrete guarantees of quality, elegance, and responsibility.

The textile and clothing industry, being a resource-intensive sector is at the center of European Union actions to move toward a more sustainable growth model. As for Italy, Italian Fashion System is one of the largest world organizations representing the textile and fashion industry in the Western world, it is a member of Confindustria and Confindustria Moda and is the most representative founding member of the European Organization of Textile Clothing (Euratex). SMI pays attention to the dynamics of development and evolution of the textile and fashion industry, including those related to sustainability, and places itself at the service of Italian companies operating in the sector. The ecological transition of the textile sector is therefore seen as an element with great potential for circularity and climate impact reduction. Therefore, as specified by the European Union Directive n. 2018/851³¹, several initiatives are being implemented to achieve high levels of separate collection of textile waste by 2025 and to improve the environmental performance of textile goods. Furthermore, the “Next Generation EU” plan, starting from the analysis of the repercussions of the COVID-19 pandemic on the European economy, in which the textile sector is among those most affected by the crisis, has subsequently identified the tools and the resources to promote an equitable, inclusive, and sustainable recovery.³²

³¹ European Parliament and of the Council, 30 May 2018. “Directive (EU) of the European Parliament and of the Council amending Directive 2008/98/EC on waste”. (No. 2018/851). (2018, June 14). *Official Journal of the European Union*, 109-140. <http://data.europa.eu/eli/dir/2018/851/oj> (accessed on 26 August 2022,16:00).

³² European Commission website. *NextGenerationEU*. https://next-generation-eu.europa.eu/index_en (accessed on 26 August 2022, 16:00).

In this perspective of sustainable development and social responsibility, as already described in chapter 1.3, there are several initiatives proposed by the Italian fashion system to increase its commitment to ethical and environmental issues, among which we recall the adhesion to the 2030 Agenda program and the Manifesto of the National Chamber of Italian Fashion for the creation of responsible and sustainable approach in order to demonstrate the possible and necessary union between fashion, sustainability and Made in Italy. The advantage that characterizes the Italian fashion system is in fact the concept of Made in Italy, which contains a set of values that naturally express the style, culture, quality, craftsmanship, creativity, and innovation of the Italian product. Therefore, these values combined with greater ethical and sustainable responsibility further increases the significance perceived by consumers, guaranteeing Italian fashion companies an inevitable competitive advantage. In this regard, it is essential to be able to communicate the complete transparency of the supply chain at every stage of the production and distribution cycle in order to effectively guarantee the authenticity of the Made in Italy product. Only by doing so, the added value can be effectively communicated and, as a result, a reliable relationship with customers be created. To achieve this goal, the SMI together with the Italian Ministry of Economic Development (MISE) has formed a unit to create a European traceability system, in collaboration with Euratex for guarantee the maximum transparency of the manufacturing processes and enhance the feature of the Made in Italy fashion products.

Among the sustainability practices undertaken by the Italian fashion system in order to contribute to the implementation of a more efficient circular economy capable of enhancing the Italian fashion textile sector, in 2021 RETEX.GREEN³³ was established, a non-profit consortium sponsored by SMI formed exclusively by Italian manufacturers for recycling in fashion. It is a collective EPR system for the management of waste from textile, clothing, leather goods and footwear products, representing an associative tool to

³³ Sistema Moda Italia. Federazione tessile e moda. (2021). *Retex.green*. <https://www.sistemamodaitalia.com/it/> (accessed on 27 August 2022, 17:00).

reach a higher level of sustainability of the supply chain and a concrete support for Italian companies.

The main mission of the Consortium is the optimized management of waste from the fashion world, providing a concrete methodology for the implementation of environmental and transparency practices along the entire supply chain of the industrial activities to manage post-consumer waste, reuse, and recycling in a competent and efficient way. The primary value of the Consortium will be the adoption of the so-called “best practices” relating to the transparency and legality of waste management.

RETEX.GREEN, will therefore take care of the following activities:

- Increase the environmental and social sustainability of the supply chain, starting with the manufacturing to distribution and consumption cycles, while quantitatively maximizing and qualitatively improving separate collection and waste management of clothes, footwear, and leather items.
- To optimize the recovery of valuable resources contained in trash and reduce the use of disposal, promote among its consortium members the practices of waste generation prevention, use of recycled materials, and circular economy initiatives.
- Assist consortium members with all administrative processes and Environmental Regulations established information, communication, declaration, registration, and authorization need.
- Complete all other functional tasks beyond those listed, such as consultation, administrative, commercial, and logistical tasks, environmental education, research and development, planning, and eco-design.

Therefore, nowadays the need to open new paths for the circularity of the fashion industry has led many Made in Italy businesses now recognize their ethical and environmental obligations by establishing a higher level of sustainability in their production processes and allowing a significant increase in reuse and recycling activities.

2.4 The Chinese transition towards a sustainable fashion

China has always been defined as “the factory of the world” or the “manufacturing giant” characterized by a huge amount of production for the most part not compliant with sustainable and ecological requirements. However, in recent years, due to the growing concern and awareness of the effects that this entails, it has begun to make a radical change regarding the environmental issue, by developing new initiatives, particularly in the textile and clothing sector, to generate more environmentally friendly goods. Indeed, the fashion industry has always been very important in China, and in order to support its development and ensure the industry’s ability to renew and adapt to current changes, the application of innovative practices, greener policies and the promotion of a positive impact on the environment is crucial.

The importance attributed to the fashion sector is given by the fact that China is the largest exporter of textile and clothing products, its exports represent over a third of the total in the world, and therefore, it has the responsibility of playing a key role in achieving sustainability in the global fashion industry. However, the apparel sector suffers huge losses every year as a result of production that does not meet ecological standards due to the cultivation of raw materials of textile fibers and used in dyeing processes that contain chemicals banned in international trade; as a result, the apparel and textile sector’s goal is to make a transition towards a sustainable economy and an ecological transformation. Being among the first powers in the world for the production of cotton, silk, wool, cashmere and other natural fibers, the Chinese textile industry, through the implementation of green marketing strategies, must exploit its abundance of raw materials producing and using sustainable fibers, which are those that in the production process and during their entire life cycle do not increase a negative impact on the environment, with the aim of developing a more ecological consumption. Furthermore, the considerable gap that exists between the development of the Chinese eco-sustainable clothing sector and that of developed countries is a source of a loss of competitive advantage on the global market, this is happening since in China the improvement of an environmental awareness for ecological designs and textile fibers it is spreading, although rapidly, only recently.

Among the various strategies implemented by the Chinese government to develop a transformation and growth in qualitative terms both from a social and economic point

of view, it is important to mention China's Agenda 21³⁴, the first Chinese national project for sustainable development approved by the State Council of China in early 1994, after the United Nations Conference on Environment and Development held in Rio de Janeiro in 1992. After that, regarding the T&A industry, to improve the development of green fashion in China, in 2005 the China National Textile and Apparel Council (CNTAC) introduced the first corporate responsibility management system towards sustainability in order to provide guidance to raise T&A producer's awareness. CNTAC is the National Federation of all textile industries and is a non-profit organization formed on a voluntary basis, its goal is to adhere to national industrial policies by actively guiding and promoting the development of the Chinese textile and clothing industry. Among the main tasks of the CNTAC are:

- Research and analysis of national and worldwide textile industry development trends.
- Monitoring company performance and, as a result, implementing development strategy plans to preserve the sector's interests and promote textile firms.
- Coordination of economic links between various sectors of the textile industry in order to improve industrial value chain integration and collaboration.
- International economic cooperation management.
- Participation in the creation of the technological development plan and the establishment of the textile industry's industrial standards.

Nevertheless, despite the countless efforts made to achieve the predefined goals in order to guarantee local businesses an innovative and sustainable development, the Chinese T&A system is still limited compared to other developed countries. It is in this context of backwardness that China promoted the 14th Five-Year Plan by formulating development strategies for the Chinese T&A sector, with the aim of improving industries by introducing new and advanced technologies, increasing sector innovation and limit the structures that generate waste by polluting the environment. Furthermore, in recent years,

³⁴ State Council of the People's Republic of China. (1994). China's agenda 21: White Paper on China's Population, Environment and Development in the 21st Century. *Ministry of Ecology and Environment website*. <https://english.mee.gov.cn/> (accessed on 1 September 2022, 10:00).

in order to pursue this sustainable development and protect the environment, the issue of corporate social responsibility has been addressed in order to increase environmental awareness, so starting from 2013 necessary requirements regarding the materials used, raw materials, textile fibers and pollutants started to be integrated. Therefore, the Chinese fashion industries had to reconsider and reprogram their entire supply chain through the introduction of effective ethical and sustainable policies and practices starting from the choice of alternative and non-polluting raw materials up to the creation and consumption of an eco-friendly product.

The growing interest in issues related to environmental protection has meant that Chinese society pays greater attention to the use and exploitation of natural resources, leading to an increase in industrial activities for waste disposal, water and energy consumption, reduction of emissions and optimization of production processes. Thus, over the years the Chinese textile industries have begun to recognize their social responsibility as a strategy to improve their image and reputation through which to convey the importance that derives from selection of non-polluting and non-toxic materials to a society that is increasingly attentive to the ecological nature of products.

In the perspective that Chinese industries reach competitive standards in terms of innovation, technology and sustainability, numerous strategic initiatives are launched, including the “One Belt One Road” (一帶一路 yidai yilu) inaugurated in 2013 by the Chinese President Xi Jinping. The plan is divided into a double strategy, the first defined as “economic silk road” and the second one as “maritime silk road”, both with the aim of expanding the Chinese economy to new markets, increasing the trade of domestic products, and consolidating international relations. In addition, the Belt and Road Initiative (BRI) also included the project to pursue a green development which led, during the 2019 Belt and Road Forum, to highlight the importance of pursuing a green BRI strategy through the establishment of the Belt and Road Initiative International Green Development Coalition (BRIGC)³⁵ supervised by the Chinese Ministry of Ecology and

³⁵ United Nations Environment Programme (UNEP). *The Belt and Road Initiative International Green Development Coalition (BRIGC)*. <https://www.unep.org/regions/> (accessed on 2 September 2022, 15:30).

Environment (MEE) to ensure the implementation of environmentally friendly and sustainable commitments. The purpose of the BRIGC is to ensure the environmental sustainability of the BRI by promoting the integration of international standards and best practices to be adopted in order to ensure green development and to facilitate the achievement of the Sustainable Development Goals (SDGs) introduced by the United Nations in the 2030 Agenda. Furthermore, together with all other initiatives aimed at the sustainable development of Chinese industries there is the “Made in China 2025” plan (中国制造 2025 zhongguozhizao erling’erwu), a ten-year industrial policy launched in May 2015 aimed at developing and improving the entire industrial fabric of the country by 2025; the plan aims at updating the country’s industrial structure and increasing the competitiveness of Chinese companies in the global market by ensuring a sustainable development. The Made in China 2025 initiative was introduced in order to allow China to evolve as a “manufacturing power” by transforming the traditional approach aimed at a production focused on quantity towards one focused on quality, in fact, the goal is to ensure that Chinese manufacturing can be recognized as a creator of quality and high-level goods, moving from the concept of “Made in China” to the one of “Design in China”.

All these strategies implemented to pursue social and environmental progress are also having positive effects on the Chinese fashion industry, which started to share a new eco-sustainable approach that involves the recycling of raw materials and textile waste. In fact, the development of a system for the recycling and recovery of resources and waste textile materials would make it possible to enhance the production from a qualitative point of view, thus allowing the improvement of the image and reputation of Chinese goods. Therefore, the eco-sustainability projects implemented by T&A enterprises must be able to find effective solutions to face the current global situation characterized by the exploitation of natural resources and thus, precisely based on these assumptions, China is trying to realize a social, environmental, and economic transformation aimed at creating organic and ecological fiber products.

In conclusion, for China the path towards the development of a green economy would not only offer environmental and ecosystem benefits but also opportunities from a social and economic point of view by providing the necessary and required foundations on how to save natural resources, recycle and reuse waste materials and reduce pollution.

2.5 How to communicate sustainability: the green marketing strategy

Communication represents the key point in the management of a system focused on ethical and environmental corporate responsibility, in fact many companies communicate to their consumers and other stakeholders the sustainable actions and practices they are implementing in order to confer the image of a transparent brand committed to social issues. This kind of communication focused on the spreading of information regarding the development of ecological items aimed at minimizing their environmental impact and of a new consumption model, which try to encourage people to have sustainable lifestyles and to guide consumers towards more responsible and ethical purchasing choices is defined as “***green marketing***”, also known as eco or environmental marketing. Even if the real transition towards a sustainable and ecological approach does not take place through marketing and communication but, as has already been widely explained, it must take place within the corporate culture, nevertheless green marketing represents the ideal tool for companies to communicate and get in touch with consumers in order to promote their sustainable and ecofriendly development and increase their social purchasing responsibility.

Green marketing is able to influence both the behavior of the company itself and the decision-making processes of consumers, in fact the firm that implement eco-friendly strategies and policies attract users who are more attentive to environmental and social aspects. Green strategies seek to eliminate waste within the production chain from the choice of raw materials to the distribution and consumption of the product or service. Therefore, the role of green marketing, influencing the behavior of both consumers and businesses, is fundamental for the transmission of ethical values and the so-called “best practices” that can contribute to increase the awareness of all stakeholders and to the development of responsible and sustainable attitudes.

To be beneficial for the company’s image from an economic and environmental standpoint, green marketing communication strategies must adhere to the so-called “Five I of Green Marketing”³⁶:

³⁶ Grant J. (2007). *The Green Marketing Manifesto*, John Wiley & Sons.

Intuition: the development of an environmental language that allows for the intuitive and simple access to sustainable solutions in order to raise people's awareness and provide them the opportunity to make more responsible choices.

Integration: refers to the integration of economic and socioeconomic and environmental factors. As a result, by combining economic and socio-environmental development, it is feasible to produce an improvement that affects all elements of life.

Innovation: development of technologies such as green marketing in order to generate new goods and lifestyles.

Inviting: transitioning to more sustainable techniques must be a decision that people want, regarded as an enhancement in their lifestyles rather than a sacrifice. Although the first ecological movements emerged at the end of the 1980s and the beginning of the 1990s, there was no genuine shift in thinking toward the use of eco-friendly items during that time period since this transition was viewed as a tough sacrifice to make.

Information: it is vital to raise awareness and information so that individuals wish to adopt more conscious actions, so transforming their lifestyle to one that is more responsible and responsive to environmental dynamics. Information is critical for companies that aim to build customer trust by reflecting their beliefs and personality.

Furthermore, green marketing, through the diffusion of new innovative models and lifestyles with a greater attention to social and environmental aspects promotes a new culture that aims at safeguarding the environment and society itself. Through this training and transformation process, the consumer is involved in an awareness process that leads him to understand the need for a more eco-sustainable method of consumption, in this way the green marketing strategy is effective in order to spreading a mentality and a social culture that aims at achieving environmental standards.

However, companies that choose to implement ethical strategies and practices by committing to create sustainable production processes must also be able to demonstrate to their consumers the truthfulness of their eco-sustainability; in fact, through the communication strategy of green marketing and exploiting the *marketing mix*, which indicates the set of variables that enterprises use to achieve their goals, they are thus able

to propose their eco-friendly approaches. The green marketing model is therefore the same as the traditional one characterized by the so-called 4Ps, which represent the main elements of any marketing strategy. It will therefore consist of:

Product: the development of ecological and eco-sustainable items made from certified or recycled raw materials that have no environmental impact during the manufacturing and consumption processes.

Price: while the price may be greater than for less green alternatives, some consumers are willing to make some additional sacrifices in order to acquire environmentally friendly items.

Place: it is necessary to evaluate the distribution methods, materials utilized, and marketing of the items; it should be as local as possible, with an emphasis on trash recovery and recycling.

Promotion: marketing should focus on effective communication, on sustainable initiatives and activities implemented within company culture, in order to provide the customer with the required knowledge to make an informed and environmentally conscientious decision.

Based on the objectives set by the company and on the aspects that it takes into consideration, among the commercial, the environmental or the culture one, can be outlined three different types of businesses that implement the green marketing strategy, divided into: Green, Greener, Greenest.

Green: a green firm communicates to other companies and stakeholders the ideals of environmental responsibility that it is pursuing, solving the environmental challenge by adopting new green and ecological policies and standards for production.

Greener: a greener firm attempts to generate a new market in accordance with environmental criteria by establishing a connection between the brand and its consumers through information exchange and social responsibility in order to steer them toward a more sustainable approach.

Greenest: this type of firm tries to build a new sustainable market by implementing new ecological business models and investing in sustainable culture development to spread its ideas and encourage responsible lifestyles.

In summary, the main objective of green marketing is to “*make sustainable products and services seem normal and not to make normal ones seem sustainable*”³⁷ trying to educate towards a more ecological culture that includes the reduction of environmental impacts, the improvement of social well-being and green activities without affecting economic results.

The fashion industry in this transit towards the encouragement to embrace new sustainable models and develop a more responsible consumption plays a fundamental role, in fact, it is precisely through a correct management of green marketing strategies in the new emerging fashions, such as vintage, eco-design and all those focused on recycling and reusing products in order to give them a new life, that real change can be made by encouraging people to consider new lifestyles that are more ethical, sustainable and focused on respecting the environment. For textile and clothing companies to be able to successfully adopt an effective green communication, they must first focus on the culture of consumption, analyzing the various decision-making processes of purchase to convey to the consumer the need for the development of a method of eco-sustainable consumption to make the purchase of a green product the most normal and immediate choice. Therefore, an effective green marketing strategy includes the communication of all the sustainable practices that are undertaken by fashion companies by involving the consumer himself in this process of transition towards a more responsible approach and giving him the opportunity to take part in the implementation of methods of more eco-sustainable production and consumption.

Among the most effective green marketing strategies is the adoption of communication of sustainability initiatives through websites, thus allowing companies to transmit any type of information to any consumer in an immediate and constant way. Regarding this green communication strategy, some scholars (Da Giau et al., 2016) have developed a study in which it is examined a correlation between the sustainability

³⁷ Ibidem.

practices within the enterprise and the related adoption of web-based sustainable communication strategies in relation to the fashion system. The study led to the definition of a matrix (Figure 9), consisting of four quadrants, representing the level (high or low) of use of web-based communication and the level (high or low) of implementation of social and environmental sustainability practices of fashion companies.

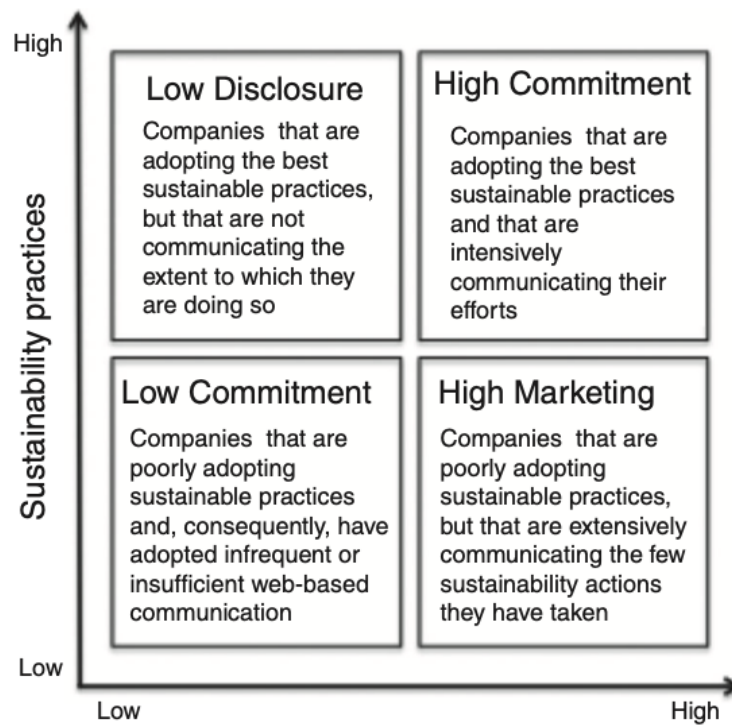


Fig.9 Web-Based Sustainability Communication

Source: Da Giau et al. 2016

The four quadrants of the matrix are defined as follows:

- **Low commitment:** it includes businesses that are not involved in sustainability efforts and, as a result, do not convey any commitment to these concerns over the web. Because these organizations have yet to see an effective competitive advantage in implementing sustainable practices and strategies inside their corporate culture, they are focusing solely on economic benefits, resulting in no development of responsibility for environmental preservation and respect.
- **Low disclosure:** it includes all organizations who, although following high-level sustainable policies, do not communicate their work in an equal manner over the web. Although these companies include ecological and environmental protection initiatives in their strategies, they do not consider green communication to be

important for gaining a competitive advantage; frequently, this choice of omitting information about corporate responsibility activities stems from a fear of potential scandals associated with an inappropriate implementation of sustainable practices along the production chain.

- **High commitment:** It includes all companies that implement high-level ecological strategies (like those in the “low commitment” group) while also using the web as a communication tool for all environmental and social sustainability practices implemented, ensuring transparency and continuous information to the consumer. Most organizations with a value-seeking attitude must fall into this category, conscious of the benefits of both sustainable processes and expressing this interest to the customer to add value to the fashion product.
- **High marketing:** These have low levels of sustainability behaviors but high levels of sustainability communication. This is possible through or a skilled marketing activity capable of emphasizing even the smallest sustainable actions taken, or by the less ethical practices of green washing; indeed, for this type of company, despite not having the ability to implement adequate and desired environmental activities, demonstrating a strong interest in issues related to sustainability and the environment can increase the value of the brand perceived by the customer and, as a result, gain a competitive advantage. In any case, these companies must be careful to communicate only the practices actually implemented in order to avoid risk. There is a gap between how these organizations handle sustainability through effective, if limited, measures and how they communicate that commitment to their stakeholders on the web.

Finally, the green marketing strategy allows the firm to successfully convey its sustainable efforts and operations, ensuring social, economic, and environmental advantages through the spread of a more ethical and responsible attitude and lifestyle.

CHAPTER III

REGULATORY AND CERTIFICATION FRAMEWORK IN THE FASHION SECTOR

3.1 General overview of environmental standards and regulations

In the following chapter, will be introduced the environmental certifications and standards required in the fashion sector in order to guarantee an ethical and sustainable development that is effective for the protection of natural resources and the ecosystem. Companies in the fashion and textile industries are trying to make a transition towards a more environmentally friendly and sustainable approach, also increasing customers' social and ecological awareness. For this reason, an increasing number of businesses in the textile supply chain are getting involved in corporate sustainability initiatives, focusing on the optimization of greener processes, support for innovation and research, certifications to ensure respect for consumer and worker health, and improvement in recycling activities. The certification systems arise mainly from the companies' desire to give substance and credibility to their commitment and to communicate their efforts and ethical responsibility to consumers. In fact, for all parties involved, firm certifications act as a kind of assurance and reliability to avoid being subjected to misleading communications and greenwashing practices. Nevertheless, the integration of sustainability in the textile industry involves not only the adoption of ecological procedures and certifications, but also the assurance of the quality of raw materials, their traceability, the effects of those procedures on the environment, and the respect of workers' rights.

One of the best international tools to use in order to develop and transmit a conscious and responsible corporate image aimed at quality control and at its continuous improvement is the International Organization for Standardization (ISO), which is a global non-governmental corporation that supports innovation by providing solutions to global challenges through the development of international standards. In fact, an ISO

standard is a document that outlines the requirements, guidelines, and specifications relating to the qualities that products, processes, and services should have to perfectly fulfill their purpose, guaranteeing that they are safe, dependable, and of high quality, moreover, it also helps businesses improve their efficiency by reducing costs, maximizing productivity, and decreasing waste.

To address the growing attention and concern related to the environmental issues that emerged from the 1980s and 1990s some methods of quality assurance have been developed. Among these, two macro-categories can be distinguished and defined as:

- 1. Management systems certification:** it assures an organization's capacity to structure and manage its resources and production processes in order to understand and meet customer demands while committing to constant development.
- 2. Product certification:** it is a type of direct insurance that confirms that a tangible or intangible product or service meets the necessary standards as a consequence of a procedure.

The primary goal of the first certification category is to verify that the company implements Quality Management Systems (governed by ISO 9001) for the environment (ISO 14001, EMAS), for health and safety at work (ISO 45001), for information security (ISO 27001), and for food safety (ISO 22000). Therefore, the implementation of management system standards (MSS) enables the integration of efficient and effective processes and practices to *“help organizations improve their performance to achieve their goals and objectives and to create an organizational culture that reflexively engages in a continuous cycle of self-evaluation, correction and improvement of operations and processes through heightened employee awareness, management leadership and commitment”*³⁸. Indeed, the implementation of an effective management system allows the organization to use the available resources efficiently, thus improving both environmental, financial and production performances. Among the main ISO standards to be taken into consideration for a qualitative management, the most relevant are ISO

³⁸ International Organization for Standardization (ISO). *Management system standards*. <https://www.iso.org/management-system-standards.html> (accessed on 3 September 2022, 11:00)

9000:2015, ISO 45001:2018, ISO 14001:2015 and the Eco-Management and Audit Scheme (EMAS).

The family of ISO 9000 encompasses standards that provide guidance for organizations that want to ensure that their products and services continually improve in order to respond to customer needs and requirements. More in detail, ISO 9001:2015 specifies the criteria to be followed for the creation of a Quality Management System based on value and continuous improvement. Through the specification of these requirements, the organization that applies the ISO 9001 standard will be able to provide products and services that meet both the needs of customers and the requirements of the policies, thus improving both the internal company system and the relationship with stakeholders.

The ISO 45001 standard replaces the previous BS OHSAS 18001 and specifies the essential requirements that an organization must possess to implement a valid Occupational Health and Safety Management System (OH&S), to spread safer work practices, minimize the risks and guarantee the safety and health performance of workers. The application of the ISO 45001 standard makes it possible to integrate a management system aimed at improving health and safety in the workplace and integrating legal obligations that provide for the well-being and protection of workers' rights.

The ISO 14000 family provides practical tools for businesses and organizations that want to monitor and improve their environmental responsibility. Therefore, the goal of these standards is to focus on effective environmental management to address concerns related to issues such as climate change, environmental protection, and sustainable growth. Moreover, the environmental certification according to the international standard ISO 14001 certifies the compliance of an organization with specific international environmental requirements allowing any organization to improve its ecological performance thus providing positive value both for the ecosystem and for the society in which the company operates. Moreover, the implementation of a certified environmental management system makes it possible to correctly monitor the environmental performance of the company, facilitate financing procedures, reduce waste and consumption, feed value and corporate reputation, communicate internal processes with greater transparency. The ISO 14001 standard is also fully implemented in Annex II of

Regulation 1221/2009 (EMAS), for which its implementation provides for the mandatory existence of an Environmental Management System (EMS).

Regulation (EC) no. 1221/2009³⁹ in force since January 2010 established the EMAS system, a Community Eco-management and Environmental Audit System which is a voluntary environmental management tool for all types of organizations and businesses located within the territory of European Union or outside it, willing to commit to improving their environmental efficiency. In fact, EMAS represents a useful tool for the European action plan “Sustainable production and consumption” and “Sustainable industrial policy” aimed at an effective commitment to sustainable development, carrying out periodic and objective assessments of the environmental performance of organizations and actively involving interested parties through the dissemination of information and staff training. Membership of EMAS allows companies to increase their internal efficiency, reduce costs and use of natural resources, improve internal and external relationships, increase ethical responsibility by guaranteeing respect for and protection of the environment.

All these standards aimed at improving the quality of company management systems can be easily integrated with each other, in order to guarantee effective development of company performance from a systemic, environmental and social point of view.

The second category of product certifications includes the ISO standards useful for environmental labels and declarations (ISO 14020, Type I ISO 14024, Type II ISO 14021 and Type III ISO 14025 labels). In fact, mainly in European countries, since the 1980s ecological brands started to include in their labels their sustainable production processes, so to standardize all these types of labels in 1992 the European Union with Regulation no. 880/1992 that is now governed by Regulation (EC) no. 66/2010 in force in the 28 countries of the European Union and in the countries belonging to the European

³⁹ European Parliament and of the Council, 25 November 2009. “Regulation (EC) on the voluntary participation by organizations in a community eco-management and audit scheme (EMAS)”. (No. 1221/2009). (2019, January 9). *Official Journal of the European Union*, 1-45. <http://data.europa.eu/eli/reg/2009/1221/2019-01-09> (accessed on 3 September 2022, 15:00).

Economic Area - EEA (Norway, Iceland, Liechtenstein) has established a European labeling system to guarantee ecological quality mark defined “Ecolabel” (according to EC regulation, no. 66/2010), through which denomination, in fact, is possible to distinguish products and services characterized by a reduced environmental impact. The ISO standards for environmental labels give businesses the ability to describe their ecological products effectively and accurately. This gives them the chance to give clear and accurate information about the materials used in the production chains to convey a responsible and transparent corporate image. The international standard that establishes the parameters according to which companies must develop and applicate their own environmental labels and declarations is the ISO 14020 standard. Other international standards that are compliant with the concepts outlined in ISO 14020 are the following:

- **ISO 14024:** Establishes the rules and methods for developing Type I environmental labeling programs, commonly known as ecolabelling schemes, including the selection of product categories, environmental requirements, and functional specifications for each product. It also describes the methods for certifying a product or service after fulfilling a set of standards. The ISO 14024 standard has been recognized as a global baseline for environmental labels by the Global Ecolabelling Network (GEN), an international federation of ecological labeling authority.
- **ISO 14021:** Self-declared environmental claims (Type II environmental labeling) define the ecological requirements for products and services by contributing credibility to environmentally valuable remarks. It also includes label indicators such as symbol and drawing usage, location, and size, as well as processes for reviewing environmental claims to ensure their functional validity.
- **ISO 14025:** The ideas, techniques, and requirements for the design of declaration programs are established in Type III environmental declarations.

The growing consumer awareness towards sustainability and the potential for businesses to gain a competitive advantage by demonstrating their attention to these issues have contributed to the growth of numerous environmental standards related to the management of corporate systems and goods. Consequently, the necessity to provide accurate, transparent, and understandable information has prompted the establishment of

several regulatory standards intended to protect the environment and move society towards a concrete green improvement.

The fashion industry has encountered a new evolutionary trend that has forced it to reshape its business strategies in a qualitative and sustainable perspective through the adoption of environmental standards and certifications since the new needs and requests from the market feed the necessity to adopt quality control tools and, consequently, ISO standards. In the textile and fashion sector, among the different types of certifications that serve to verify that the production of goods and services takes place in a sustainable way, distinction is made between those related to social sustainability, that have the purpose of establishing minimum standards of respect for workers' rights, and environmental ones, which instead focus on the use of dangerous materials and chemicals and on the production chain. Therefore, the most widespread and globally applied social and environmental standards can be classified into the following:

- The Oeko-Tex “Standard 100” label is a textile product certification system that attempts to ensure that potentially hazardous elements are not present in the textiles of the completed product at all stages of manufacturing.



Fig. 10 Oeko-Tex “Standard 100”

Source: OEKO-TEX®

- The Oeko-Tex “Made in Green” which is a traceable product label applied to all sorts of textile and leather products manufactured in environmentally friendly factories with safe and ethical working conditions, giving clients with the assurance that the product was created from materials tested for potentially harmful compounds.



Fig. 11 Oeko-Tex “Made in Green”

Source: OEKO-TEX®

- The Oeko-Tex “Leather Standard” label is a worldwide fabric and leather goods certification system dedicated to assuring the implementation of environmentally friendly production techniques that fulfill both the standards of the leather goods manufacturing sector and chemical verification.



Fig.12 Oeko-Tex “Leather Standard”

Source: OEKO-TEX®

- The Oeko-Tex “STeP model” for sustainable textile and leather production, examines and evaluates production chain conditions from an environmental and social standpoint, with the goal of encouraging the use of environmentally friendly technology and manufacturing methods, improving health and safety, promoting socially responsible working conditions, and promoting corporate social responsibility.



Fig. 13 Oeko-Tex “SteP model”

Source: OEKO-TEX®

- The EU-Ecolabel, an ecological European badge ensuring that the product meets organic requirements. It certifies the lower environmental effect of goods and services, letting consumers to identify environmentally friendly items through a brand.



Fig. 14 EU Ecolabel

Source: European Commission

- The “Global Organic Textile Standard” (GOTS), which ensures that organic textile goods are obtained in accordance with environmental and social standards used at all levels of production, from natural fiber collection to following manufacturing stages, up to completed product labeling. It also assures social and environmental concerns through independent certification agencies (ICEA in Italy), allowing organic textile producers and sellers to obtain a certification that is acknowledged in all major markets.



Fig.15 Global Organic Textile Standard (GOTS)

Source: GOTS

- SA8000, also defined as Social Accountability System, which is the most widely used management standard developed by Social Accountability International (SAI) and managed by Social Accountability Accreditation Services (SAAS). It was the first social responsibility standard to be globally acknowledged as a certifiable reference with the aim of enhancing working conditions. It is primarily intended to certify certain aspects of corporate management relating to corporate social responsibility, including respect for human rights, of workers' rights, and protection against the exploitation of minors, health and safety, development, and training programs. It is based on the universal principles of international declarations relating to human rights that aim to ensure an ethical fashion development.
- The Fairtrade Foundation, which oversees assigning its own mark to goods that have complied with a set of parameters, including fair pay, decent working conditions, and reasonable contracts with producers. It includes the Fairtrade Textile Standard, which has the aim of improving the consideration of workers' requests in textile factories and allowing them to negotiate their working conditions independently.
- The Fairtrade Organization's "Fair Cotton" mark, which verifies the cotton's origin. Moreover, there is a new system provided by the "Better Cotton Initiative", a nonprofit association dedicated to enhancing labor conditions in cotton production by ensuring the creation of cotton textiles from sustainable cultivation.
- The "Blue sign" system, which establishes the standards for safe and ecologically friendly production by removing the potentially dangerous substances from the first stages of the production chain.
- The Cradle to Cradle (C2C) certification, it is a quality standard that evaluates the safety of a product for humans and the environment and its design for the reuse of materials, through recycling or composting. Thus, its objective is to define a type of economic structure designed to be able to regenerate itself, also known as "circular economy". This strategy tries to develop a system that is not only efficient but also unable to generate waste, indeed, at the end of the process, the certified products can either be reintegrated into the environment or destined to be reinvented.

This series of internationally valid environmental marks and certifications are useful as they certify the product guaranteeing the absence of toxic and chemical substances harmful to health and not regulated by law, assuring in most cases also the presence of recycled material to inform the consumer about the eco-sustainable nature of the good or service. The ongoing changes and innovations taking place especially within the fashion industry, emerged due to the evolution of technological progress combined with a growing environmental and social awareness, has led to the need to develop and adapt new ecological regulations and legal policies. The gradual reduction and elimination of toxic and harmful materials has been made possible by the introduction of environmental certifications and standards intended to enhance the performance of production processes and finished fabrics. In fact, the adoption of techniques and initiatives to improve the qualitative characteristics of products, including actions to ensure, for example, the waterproofing, the stain-resistant and the flammability of goods, has led to develop effective and environmentally friendly alternatives to pursue the progress of green fashion. Therefore, induced to improve the quality and excellence of their products, fashion companies have begun to develop business strategies aimed at sharing and implementing environmental quality standards. This explains why in recent years there an increase in the number of certifications has not only been related to the textile and clothing sector, but also a change in the composition of the importance covered by the various categories of regulations, leading to a growth of health, safety, and environmental protection standards.

After having introduced in general terms the main regulations, initiatives and certification that are related to the textile and clothing industry, in the following chapters will be explored and compared in detail the national and international standards that the Chinese and Italian fashion industry have applied to comply with market changes and requirements resulting in a more cautious and sustainable buying and selling attitude.

3.2 The “Made Green in Italy”

Over the years, Italy has always tried to differentiate itself by identifying sustainability as not only an opportunity but also a necessary step to ensure itself a prominent position in a market characterized by consumers who are becoming more demanding towards environmental concern and brands that concentrate their strategies on the proposals of eco-friendly products and services. In fact, these measures in favor of product and production transparency, which were once largely considered as voluntary, now represent a path that all industries in the sector must take and accept to avoid being excluded.

Therefore, Italy is working to increase and develop the transmission and association of the Made in Italy brand with the idea of product sustainability through measures and regulations applicable to the world of fashion. Given this circumstance, the Italian government has agreed to establish a voluntary national program called “Made Green in Italy” (MGI) for calculating and communicating a product’s environmental footprint to support the development of a sustainable economy and limit the exploitation of resources. Indeed, the process for the definition of the first national certification scheme for “*environmental provisions to promote green economy measures and to limit the excessive use of natural resources*”⁴⁰ begins on December 28, 2015, with the promulgation of the law n. 221, which defines the Made Green in Italy system for the evaluation and communication of the environmental impact of Made in Italy products. It includes precise measures relating to the protection of the environment, the diffusion of sustainable development, the promotion of environmentally friendly purchases and waste management, and the preservation of natural resources. In fact, the aims and objectives of this voluntary national system can be summarized in the following actions:

⁴⁰ Law 28 December 2015, n. 221. “Environmental provisions to promote green economy measures and to limit the excessive use of natural resources” (2016, 18 January) (Italy). *Official Gazette of the Italian Republic*, (13), 1-102. <https://www.gazzettaufficiale.it/eli/gu/2016/01/18/13/sg/pdf> (accessed on 5 September 2022, 17:30).

- Encourage the adoption of innovative techniques and sustainable guidelines capable of ensuring an improvement in the consequences that manufacturing procedures and finished goods have on the environment.

- Enhance the reputation and image of Italian productions by associating environmental quality with social sustainability standards.

- Improve products' environmental certification.

Therefore, in accordance with paragraph 1 of article 21 of the above-mentioned law no.221/2015, on March 21, 2018, the Ministry of the Environment issued the decree law number 56⁴¹, that establishes the operating procedures of the Made Green in Italy system, which consist in a method of evaluating the conformity of products both according to the requirements of Made in Italy and of those necessary to be considered sustainable at a national level. The evaluation of these criteria is based on the Product Environmental Footprint (PEF)⁴² technique developed by the European Union, a tool for the assessment and communication of the ecological effect, which enables, relying on the Life Cycle Assessment (LCA), to determine the environmental impact of products by analyzing each stage of their evolution starting from the production of raw materials to the consumer's use. Taking into consideration the growth in domestic and international demand for sustainable and safe products, this certification in accordance with "Made Green in Italy" scheme, which is obviously also applicable to fashion products, is an effective and useful tool for safeguarding public health and the environment while also enhancing national businesses and economy.

⁴¹ Decree of the Minister of the environment and of the protection of the territory and the sea 21 March 2018, n. 56. "Regulations for the implementation of the voluntary national scheme for the assessment and communication of the environmental footprint of products, called 'Made Green in Italy'". (2018, May 29) (Italy). *Official Journal of the Italian Republic* (123), 2-25. <https://www.gazzettaufficiale.it/eli/> (accessed on 5 September 2022, 18:00).

⁴² European Commission 9 April 2013, n.179. "Recommendation on the use of common methodologies to measure and communicate environmental performance over the life cycle of products and organizations". (2013, May 4). *Official Journal of the European Union* (56). <http://data.europa.eu/eli/reco/2013/179/oj> (accessed on 5 September 2022, 18:30).

Concerning the Italian textile and clothing industry, being the first luxury fashion producer in the world, sustainability represents a key competitive advantage for it and is one of the pillars of the strategy of the National Chamber of Italian Fashion (CNMI), which has been committed to making it the founding value of the system since 2010. Their objective is to involve every operator of the Italian fashion system's supply chain in order to reshape the relationship between fashion and the environment by pursuing a transition towards the achievement of sustainability standards while taking into account production, social and ecological aspects. The CNMI founded the Working Group on Sustainability in 2011, and subsequently were instituted the Sustainability Commission, the Chemical Technical Commission, the Retail Technical Commission, and the Table of Chemical Analysis Laboratories. As a result, the National Chamber of Italian Fashion, which is becoming increasingly active in sustainability concern, sets out the recommendations for the use of chemicals in the fashion supply chains, which are suggested as an improvement after the 2012 Sustainability Manifesto. The aim is now to avoid the waste of resources, provide clear indications and information to all enterprises, and introduce environmental procedures, certifications, and standards.

In addition to the application of all the certifications and environmental requirements imposed by the European Union regarding the production of textile products, the same National Chamber of Italian Fashion wanted to make its contribution in order to guarantee the adaptation of the Made in Italy brand to a concept of eco-sustainable, circular and ethical fashion, thus introducing the "*Guidelines on eco-toxicological requirements for articles of clothing, leather goods, footwear and accessories*"⁴³ aimed at the progressive reduction and elimination of the use of chemicals in the textile and clothing industrial sector for the benefit of the environment, consumers, and society. This document is the first tangible outcome of the work done by the Working Group on Sustainability, which is led by Carlo Capasa (President of the CNMI), and includes several important Italian fashion companies as Ermenegildo Zegna, Gianni Versace, Giorgio Armani, Gucci, Loro Piana, OTB, Prada, Salvatore Ferragamo, and Valentino.

⁴³ National Chamber of Italian Fashion. (2016). *Sustainable Fashion - Guidelines on eco-toxicological requirements for articles of clothing, leather goods, footwear and accessories*. <https://www.cameramoda.it/media/documents/roundtable/> (accessed on 7 September 2022, 15:00).

This initiative was formally introduced in February 2016 at the conclusion of Milan Fashion Week and was revisited in April 2016 at the conference titled “The value of sustainable Made in Italy”. It represents the initial phase in a process that aims to involve and train all participants in the fashion industry, as well as gradually fueling the commitment to sustainable progress.

Currently, there are several tools for certifications, standards, and agreements, all of which have the same objective of demonstrating the commitment and responsibility of businesses towards a green and ethical development. Among these methods for environmental guarantee, to move the Italian fashion industry toward a more sustainable and recyclable production, in 2009 was founded the ReMade in Italy association with the purpose of supporting and promoting the most innovative Made in Italy businesses in the field of waste recycling, and in several communication initiatives aimed at raise awareness of Made in Italy products deriving from recycling processes. In 2013, ReMade in Italy became the first recognized product certification in Italy and Europe for the verification of recycled material content, it attests the traceability of the production processes, starting from the origin of raw materials to the finished product, while the label communicates directly and transparently about the environmental impacts and the use of recycled materials.

Therefore, it is evident that the Italian fashion industry is actively addressing environmental and social issues through the development of various initiatives, associations, and standards. In addition to the international policies and agreements that outline mandatory guidelines that impose certain environmental and social safety standards, the industries themselves must address these challenges by pursuing a shared vision of sustainability in order to prosper and reduce environmental impacts. Furthermore, Italian enterprises, due to the change in legislation brought by the European Green Deal, which will be examined in the following chapters and by the increased sensitivity to environmental issues and regulatory pressure, in order to increase their competitiveness in the market and achieve a real and uniform improvement, thus have to focus on the development of a green and sustainable fashion.

3.3 Improvement of the Chinese standardization approach

In this perspective of sustainable development and commitment, in the following chapter will be discussed and described the improvements in terms of environmental certifications and standards that China has implemented in the textile and fashion sector. In fact, since the issue of innovation and technological progress is central and fundamental at a global level, as well as making the implementation of environmental sustainability a common and shared commitment, the Chinese textile industry is striving to evolve through the development of new technologies and the enhancement of textile products. Thus, in this system of shared goals, it is crucial for the international industrial system to strengthen dialogue and collaboration in order to achieve collective benefits, and China is therefore prepared to play an active role by encouraging exchange between nations, as well as by maximizing investments in the environmental sector and collaborating on the standardization of production and certification of textile products.

In this regard, to effectively improve the quality of Chinese production, as already mentioned in chapter 1.3, in 1993 was promulgated the Product Quality Law of the People's Republic of China and later amended respectively in 2000, 2009 and 2018, with the aim of regulating the requirements and responsibilities that producers have in the production of goods. The most important and significant aspects of this law can be summarized in the following points:

1. The law applies to all manufacturing and marketing activities within the territory of China. (Article 2)
2. The market regulators of the Council of State are responsible for supervising and administering the quality of the products of the entire country. (Article 8)
3. Manufacturers are responsible for the quality of the products they produce. Sellers improve techniques to maintain the quality of the products they sell. (Articles 26 and 34)

As a result, China's production strategy, which was previously based primarily on quantity at the expense of quality, has been forced to be reviewed by the new international environmental standards, forcing it to adopt sustainable practices and certifications in

order to achieve the same common global objectives for the environmental protection and the reduction in the waste of natural resources.

In this context of formulating environmental industrial standards the Chinese State Council established in 2001 the People's Republic of China Standardization Administration (SAC), which is authorized to exercise administrative responsibilities by undertaking the functions of management, supervision and general coordination of standardization work in China, and to approve and organize the implementation of international cooperation. The SAC represents China to join the International Organization for Standardization (ISO), the International Electrotechnical Commission (IEC) and other international and regional standardization associations, it is also responsible for organizing the activities of the Chinese National Committee for ISO and IEC. Therefore, the establishment of this certifications and standards management system is useful since *“the development of standardization is able to serve the social and economic development, promoting the industrial and economic transformation and upgrading”*⁴⁴. Indeed, it aims to fulfill the following duties:

- Deliver and approve national standard plans, distribute standardization policies, administrative regulations and programs.
- Declare the nation's required regulations.
- To organize and oversee the development of industry, regional, organizational, and commercial standards.
- Represent China in ISO, IEC, and other global or regional standardization bodies.
- Signing and carrying out agreements for collaboration on global standards.
- Assume responsibility for daily operations of the State Council's standardized coordinating mechanism.

⁴⁴ Tian Shihong, Administrator of SAC. (2014). SAC. Zhongguo guojia biao zhun hua guan li wei yuan hui 中国国家标准化管理委员会 (Standardization Administration of the P.R.C.). <http://www.sac.gov.cn/> (accessed on 8 September 2022, 10:30).

In summary, SAC is actually able to assist the Chinese market and society through standardization system for all sectors by fostering trade and economic progress as well as encouraging the improvement of goods, methods, and services that are secure, effective, and ecologically.

Along with the already existing and operating institutions that develop and implement new standards and regulations such as the Standardization Administration of the PRC (SAC) and the Certification and Accreditation Administration of the PRC (CNCA), which is the primary government agency responsible for overseeing China's conformity assessment policies, including its main safety and quality mark, the Chinese Compulsory Certification mark (CCC), in 2018 the State Council of China to improve and intensify the control, testing and certification activities decided to integrate these organizations within the State Administration for Market Regulation of the People's Republic of China (SAMR), a government agency that incorporates the responsibilities of the General Administration of Quality Supervision, Inspection, and Quarantine (AQSIQ), which is in charge of a variety of market examination tasks, such as the registration of market entities, the execution of market orders, anti-monopoly, intellectual property, industrial product surveillance, and food safety activities. Therefore, it is evident that China has been trying to considerably reform its standardization system in recent years, especially between 2018 and 2019, by issuing new policies, including guidelines and strategies for the development and implementation of new national standards, such as the China Standards 2035 project, with the goal of improving and enhancing its position in international standard development organizations.

To pursue this objective of industrial production improvement through the reform of standardization system, the SAC has the role of issuing national Chinese standards, known as "GB standards" (国标 guobiao), which are applied nationally across all of the country and are capable of ensuring the validity of production processes by specifying the product's requirements for both safety and quality. They can be categorized into three categories: National Standardization Guiding Technical Documents (GB/Z), Mandatory National Standards (GB), and Voluntary National Standards (GB/T). Moreover, even though the development of GB standards is frequently based on, or aligned with, ISO, IEC, or other international criteria, nevertheless, they frequently deviate from global norms.

Regarding the Chinese textile and apparel industry to verify the conformity of this kind of fashion products in 2003 was introduced the GB standard 18401-2003, which came into effect in 2005, which subsequently has been replaced, from August 1, 2011, by the new revision GB 18401- 2010, with the goals of enhancing the quality of textile goods, reducing the amount of potentially dangerous materials in fabrics, safeguarding consumer health and safety. Therefore, the standard describes the fundamental technical and safety requirements related to clothes and fabrics, test procedures, inspection regulations, and implementation guidelines for the production, sale, and import of textile products in the Chinese market. According to the GB 18401-2010 standard, textile products are classified into three categories as below and the technical requirements each type should comply with are explained in the following table (Figure 16):

1. Category A: Textile products for infants (0-36 months of age)
2. Category B: Textile products in direct contact with the skin
3. Category C: Textile products without direct contact with the skin

Items		Type A	Type B	Type C
Formaldehyde (mg/kg)		≤20	≤75	≤300
pH		4.0 - 7.5	4.0 - 8.5	4.0 - 9.0
Colourfastness	Water	3 - 4	3	3
	Acid perspiration	3 - 4	3	3
	Alkaline perspiration	3 - 4	3	3
	Dry rubbing	4	3	3
	Saliva	4	-	-
Odor		Odorless		
Decomposable carcinogenic aromatic amine dyes (mg/kg)		Prohibited (Detection limit ≤20 ppm)		

Fig.16 Technical requirements for each textile products category

Source: Intertek GB 18401-2010

Thus, as can be seen from the above Figure 16 the textile items for infants must meet the category A requirements, products in direct touch with skin must comply with category B criteria, and products not in direct contact with skin must at least adhere to category C standards. Additionally, imported textile products generally fall into one of the three categories A, B, or C and are subject to a process that starts with customs controls and ends with random inspection after the product is placed on the shelf. All products must be labeled according to their components and include information about the categories with which they are compliant. Through the development of GB national

mandatory standards, the Chinese textile market has thus succeeded in defining requirements that must be complied by both domestic and imported products in order to ensure greater attention and awareness towards the harmful substances used, chemical fibers, human health, and the safety of various products.

Regarding the fashion sector, the need to create and implement standards and norms aimed at enhancing both the quality of domestic industrial production processes and that of goods imported into the Chinese market has been fueled by a growing awareness about these concerns that has spread throughout the nation, especially as a result of the numerous conferences held on the topic. In this regard, for example, the importance of sustainable development of the Chinese textile and its achievement through technological and scientific research was also discussed in 2012 during the second general session of the Conference of the International Textile Manufacturers Federation (ITMF) held in Hanoi, chaired by Wang Tiankai, president of the China National Textile and Apparel Council, during which he delivered a speech named “*Sustainable Development of China Textile Industry and Win-win Cooperation in Global Textile Industry*”⁴⁵. The introduction of high-performance and natural fibers, which has entailed an inevitable technological advancement in the production process of the China textile sector, was the main topic of discussion. In fact, Chinese enterprises are focusing on the adoption of bio and organic fibers to achieve greater results in terms of environmental sustainability. These aspects that emerged during the ITMF Conference in Hanoi thus demonstrated China’s deep awareness of its industrial structure, which is no longer appropriate for an extremely competitive market based on eco-sustainable growth, and of what its industrial position might become in the future after a sustainable renewal and transformation. Consequently, innovation, scientific, technological social and environmental progress have been identified as crucial components in the goal of developing an ecological textile industry.

⁴⁵ Wang T., & Yang Y. (2013). Sustainability: An Eternal Common Responsibility - CNTAC President Wang Tiankai Addressed on ITMF Annual Conference 2012. *China Textile*, 01, 36-40. [CrossRef] (accessed on 9 September 2022, 11:00)

3.4 Comparison between European and Chinese environmental legislation

Given the negative impacts that the textile and fashion industry have on the environment, it is simple to comprehend why it is one of the key sectors in the shift to a production and consumption system that is circular rather than linear and incorporates concepts like reuse, recycling, and lasting use of products. Moreover, since consumers, the media, and NGOs are paying more attention to environmental, social, and ethical issues, fashion companies are committed to be more transparent regarding their production processes and materials used. Therefore, to properly regulate all phases and processes of the production chain, it is currently necessary for legal institutions to be adapted to any potential implications that the ongoing changes may have carried on, including those resulting from the introduction of innovations relating to the fashion sector.

In this regard, in the following chapter will be exposed and examined the different and related ways according to which both Europe and China have successfully implemented environmental legislation and certifications to address this need to move towards a more sustainable development in the fashion industry.

In a context characterized by a growing interest in sustainable innovation solutions as a result of increased consumer awareness of chemicals used, and the gradual transition towards a circular economy, more and more European businesses are choosing innovative strategies to develop safer substances to the more dangerous ones. In this regard, Europe acts as the guarantee of transparent and unambiguous communication regarding the use of dangerous chemicals through the development and implementation of regulations, in this field among the most significant ones there is the **REACH Regulation** (EC) no. 1907/2006, which is the acronym for “registration, evaluation, authorization and restriction of chemicals”, that entered into force in June 2007 and establishes a European Chemicals Agency to regulate the registration, evaluation, authorization and restriction of chemicals. The fundamental objective of this European legislation is to increase awareness of the risks and dangers caused by new or existing substances by improving the protection of human health and the environment while simultaneously preserving and enhancing the competitiveness and inventiveness of the European businesses. REACH establishes the methods and procedures for gathering and analyzing data on the

characteristics of substances and the risks they present. As a result, companies operating in the European Union are required to register the materials they use in order to evaluate their regulatory compliance and describe potential dangers to human health and the environment. Consequently, if the risks are too great, the authorities may opt to prohibit harmful chemicals or may also decide to restrict their use or make them only allowed with prior authorization. Generally speaking, REACH envisions the following roles:

- Producers: will likely be held accountable under REACH if they make chemical items for their own use or to supply to third parties (although not for export).
- Importers: those who make purchases outside of the EU will likely be held accountable by REACH. Individual chemicals, post-sale combinations, or finished commodities like apparel, furniture, or plastic products are all examples of purchased goods.
- Downstream users: most businesses utilize chemicals, and as a result, it is important to confirm their obligations if they use any substances in their commercial or industrial activities because they may be subject to the REACH legislation.
- Companies established outside the EU: even if they export their products to the European Union's customs area, companies established outside it are not subject to the REACH regulation's obligations. However, importers with offices in the European Union or a non-EU manufacturer's sole representative are responsible for carrying out REACH requirements.

Along with the REACH regulation, Regulation (EC) no. 1272/2008 on the classification, labeling, and packaging of substances and mixtures (CLP Regulation) ensures that the dangers associated with chemicals are clearly communicated to workers and consumers through the categorization and labeling of substances themselves, enabling Europe to lead the world in chemical safety.

The **CLP Regulation**, which is based on the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) developed by the United Nations, strives to ensure a high degree of environmental and health protection as well as the free movement of substances, mixes, and articles. Moreover, as of June 1, 2015, it is the only standard in effect in the EU for the classification and labeling of substances and mixtures. All member states of the European Union are required to comply with the CPL regulation,

according to which producers, importers or downstream consumers must correctly classify, label and package dangerous chemicals before placing them on the market. One of its main objectives is to find out if a material or mixture has the necessary characteristics to be labeled as harmful and dangerous by classifying it through proper communication as risky. The dangers of a chemicals are determined by assigning a specific hazard class and category including, among others, environmental, physical and health risks; once a chemical or mixture has been classified, the identified danger must be conveyed to other supply chain participants, including consumers through labels and safety data sheets, thus allowing them to be alerted to the existence of a risk.

Nevertheless, even the CPL regulation such as REACH is not universal but applies only to legal entities established in the European Union and in other member states of the European Economic Area, such as Norway, Iceland and Liechtenstein. Indeed, importers or the sole representative of a non-EU producer based in the European Union are responsible for complying with these requirements and obligations, such as registration or labeling. However, importers in the EU must contact their non-EU suppliers and request the data they require to meet their regulatory duties, and in any case, as a non-EU manufacturer, you should further support your clients by designating an exclusive representative to complete the obligations of importers under the REACH and CPL regulations. Therefore, for those wishing to export to the EU it is necessary to inquire about the relevant REACH and CLP obligations, in order to know which requirements must be met, whether the exported products contain substances that require registration by the EU importer or the classification, labeling and packaging according to these regulations.

Concerning the textile and clothing sector, it is specifically administrated by the European Union **Regulation no. 1007/2011** came into effect on May 8, 2012, which specifies the rules on the names of textile fibers, the methods of labeling and marking of the products' composition fibers, as well as the indicators appearing on labels, marks, and papers associated during the life cycles of production, transformation, and distribution of clothing items. In accordance with this regulation, textile products must always be tagged or labeled when they are sold on the market, indeed textile labeling refers to the set of indications that, in accordance with current legislation, must appear on a specific label in every garment and in every textile good on the market by indicating the fiber composition

of the product at all stages of the manufacturing and distribution processes. The regulation applies to any item that contains at least 80% by weight of textile fiber, including raw materials, semi-finished and semi-manufactured goods, however, labeling is not required when the textile products are not intended for the final consumer, when they are temporarily imported to carry out processing, and finally when they are in transit through European countries but are going to be sold abroad in non-EU countries, so they will therefore comply with the regulations in force in the country of destination. Therefore, it can be stated that, due to the universal implementation of European regulations, the labeling of textile products that discloses the specific content of the fibers acts as a tool for transparency in the company's manufacturing processes in order to provide consumers with transparent and understandable information on the qualities of a product. According to the above-mentioned regulation no. 1007/2011, it is mandatory that the label contains:

- Composition information, including a list of components of the fiber or alternatively the phrase “100%” or “pure” to describe the textile item made from the same fabric.
- Easily readable and visible attached information relating to product maintenance written in the required language depending on the reference country.
- Company or manufacturer identification details such as name, headquarter, or product references like the item's barcodes.
- Composition label is required when a product contains two or more fibers, and it is mandatory to include and specify the names and percentages of each fiber contained in the garment.
- Possibility to use the term “other fibers” if a fiber represents up to 5% of the total weight of the textile product or more fibers collectively represent up to 15% of it and cannot be easily identified at the time of manufacture.

Therefore, the adoption and implementation of all these European regulations aimed at enhancing and developing clearer communication about production processes as well as at reducing the environmental effects of industrial production, particularly of textile one, are developed as key elements for the formulation of a growth European strategy in the fields of climate, environment, and chemicals which has as its core value the reduction of greenhouse gas emissions defined as the European **Green Deal**. This strategy, developed starting on October 14, 2020, intends to better safeguard people and

the environment from hazardous chemicals as well as promote innovation by encouraging the use of safer and more ecological substances to transform Europe into a sustainable and carbon-neutral economy. Additionally, the Green Deal is an essential component of the Commission's strategy for implementing the 2030 Agenda and the Sustainable Development Goals of the United Nations, in fact, this European strategy aims to incorporate the SDGs in order to place sustainability and citizen well-being at the center of its economic policies and interventions. To establish a circular and climate-neutral economy that enables the reduction of emissions and, as a result, the environmental impact, it is necessary to employ chemicals and production methods that demand less energy and thus the European Green Deal is the exact solution to these issues. It is a new growth strategy designed to transform the EU into a fair and prosperous society with a resource-efficient, and competitive economy that strives not to produce carbon dioxide emissions but to safeguard and preserve the natural resources of the EU as well individuals' health and wellbeing, guiding both the country's economy and society in the direction of a more sustainable path. In conclusion, the European Green Deal will provide Europe the ability to coordinate international efforts to create a coherent financial system that supports sustainable solutions while simultaneously offering a real chance to guide it on a new progress of environmental and inclusive growth.

China, on the other hand, since is not a member state of the European Union, has evolved a unique set of institutions, organizations, norms, and regulations that only apply to the manufacturing processes carried out on the national territory and to goods imported from other nations. As a result, certifying organizations and bodies have been established to ensure the sustainable development of industrial systems and to pursue the transformation of Chinese economy towards a sustainable one as well as the implementation of environmental and ecological reforms of the value chain and the internal market. One of them is the China National Accreditation Service for Conformity Assessment (CNAS), which is the Chinese national accreditation organization in charge of accrediting certification agencies, laboratories, and inspection institutions that have been approved and are under the CNCA's supervision in compliance with the laws on accreditation and certification of the People's Republic of China. In practice, the CNCA is the main government body in charge of regulating China's conformity assessment practices, including its main national **Chinese Compulsory Certification (CCC)** for safety and quality.

Although the European CE system and Chinese Compulsory Certification (CCC) are both standards to ensure product quality, there are still significant differences between them. For example, since the CCC certificate was adopted in 2002, it applies to both Chinese and imported products, and as a result, goods requiring this certification can only be imported, sold, or utilized in commercial activities in China after having obtained the national mandatory certification, otherwise, if the CCC requirements are not followed, the imported items are held at customs or returned to the sender, while according to the European REACH and CPL regulations only legal entities established in the European Union are responsible for complying with these certifications and obligations, therefore, even if foreign companies export their products to Europe they are not subject to these safety and quality requirements. The CCC has replaced the certifications of the CCEE (China Commission for Conformity Certification of Electrical Equipment, Chinese commission for the certification of conformity of equipment electric) and the CCIB (China Import and Export Commodity Inspection Bureau), greatly simplifying international trade with China. Additionally, the State Council asked for an increase in CCC certification agencies in 2018 to lower the cost of CCC compliance and thereby enhance the economic environment in China by making easier for foreign countries to import their products. Nevertheless, customs clearance in China is one of the most crucial aspects of an exporter's company since there is frequently a lack of understanding regarding Chinese standards and processes leading businesses to believe that their products do not need certification. Thus, it is crucial to remember, however, that laws and regulations may refer to voluntary standards, making the optional standard required. Moreover, China demands that before selling or importing goods, a producer must receive the CCC safety and quality mark and then in addition to the GB standards and the CCC certification mentioned above, other Chinese government organizations also enforce industry-specific standards or testing requirements for goods. Therefore, even if a particular product is not subject to Chinese compulsory requirements, exporters in China are always recommended to provide customs certifications to greatly reduce the probability of import issues, or in any event to be aware of some regulations since the abuse of CCC licenses or mark on non-certified items is punished by both civil and criminal penalties.

To improve the sustainable and qualitative development of the Chinese textile and clothing industry, the **China Textile Academy** (CTA)⁴⁶, the largest global research institute in the Chinese textile industry, was founded in 1956 as an affiliate institute to the former Ministry of Textile Industry. Then, in 1999, it improved into a collection of State-owned high-tech companies that were directly supervised by the central government, and in 2009, it merged with the China General Technology Group. The three primary business segments of CTA are high-tech textile materials, textile chemistry, and biotechnology, as well as production equipment and engineering services for textile and chemical fibers. Therefore, its objective is to establish itself as the leading global hub for the growth of the textile activity and significantly advance China's position as a global leader in the textile industry. Furthermore, through the application of textile standards, tests, and certifications, CTA seeks to advance and direct the qualitative development of the Chinese clothing sector by supporting the technical advancement, transformation, and modernization of the whole industry.

Therefore, the China Textile Academy established the China Textile Testing & Certification Services (CTTC), a company that provides examination, certification, inspection, and verification activities for fabric equipment as well as other services to support international businesses to export textile items to China. In this regard, both foreign and domestic businesses must adhere to the mandatory Chinese GB national standards in order to produce, sell, or import textile goods. In general, there are many ways to label a product, including tags, embroidered labels, direct printing, or stickers on the product packaging, while textiles, however, often have both tags and durable labels sewn or printed directly on them. These labels typically are constituted by three components: “product size or specification”, “fiber content and composition”, and “care instructions”. In fact, as required by the European Regulation No. 1007/2001 on trademark and labeling methodologies, also according to the Chinese national standard **GB/T 5296.4-2012** textile products must always be labeled when they are sold on the market and also in accordance with the Chinese Product Quality Law and related product

⁴⁶ China Textile Academy. Zhongguo fangzhi kexue yanjiuyuan youxian gongsi 中国纺织科学研究院有限公司 (China Textile Research Institute Co, Ltd.).<http://www.cta.com.cn> (accessed on 13 September 2022, 9:30)

In this regard, the legislation of each nation with the implications of its rules and regulations is able to encourage companies to adopt technologies, industrial methods, and manufacturing activities that are more respectful of the environment. In fact, despite the costs associated with certification processes, environmental protection is now a crucial and necessary issue for businesses to compete on the market, thus, organizations adhering to current eco-friendly compliance can gain significant advantages and benefits, both in terms of corporate image and reputation and to avoid administrative sanctions. Ecological certifications act as a reliable assurance tool for both environmental and human health protection, greatly assisting the consumer in making decisions about goods coming from enterprises that can show that their business models are built on an ecological and sustainable mentality. Additionally, by adhering to national and international environmental standards, businesses are able to voluntarily reduce their impact by offering channels for the exchange of clear and transparent information about manufacturing processes and the whole life cycle of products in terms of sustainability, enabling to obtain and provide goods and services of higher quality, greater value, and lower cost.

Therefore, considering the laws and regulations that China and Europe both have implemented to face environmental and ecological issues, although being unique from one another, it can be concluded that both share the fundamental goal of enhancing the safety and quality of industrial systems, with a particular attention to the textile and clothing sector, while also evolving as a green and innovative economy. However, in addition to the legal obligations imposed by the rules and decrees, it is now essential for every company to develop management systems that lead to economic positive results, as well as the identification of ethical and environmentally policies that are best suited to the specifics of the fashion industry.

CONCLUSIONS

The current thesis provides an analysis, developed through the examination of the related literature, of the path that has characterized the last decades of the development of the fashion industry, focused on the progressive shift towards an ethical and circular economic and production model.

As has been widely observed, a greater environmental awareness has emerged in recent years after the diffusion of ideas and practices related to newly defined concepts in the field of ecology and sustainability that did not previously exist, or at least that were thought to be voluntary and at the discretion of the individual or the enterprise itself, thus, this has led into an increase of environmental and social concerns on the part of customers, producers, retailers, and in general by the whole society.

Moreover, being one of the most polluting sectors, the fashion and textile industry has therefore been forced by these ongoing environmental and ethical concerns to reformulate on a global scale the management of its entire supply chain, from the choice of raw materials to the composition of textile fibers, from the production processes to the recycling methods, from the distribution and use of the final product to its reuse. Consequently, this updated corporate responsibility has stimulated the textile and fashion sector to implement innovations and improvements not only in the management practices and production procedures, but also, on consumers' sustainable attitudes and approaches fueling the desire to develop a new mindset and lifestyle no longer mainly focused on the excessive waste of resources but instead aimed at promoting a positive impact on the environment and on the civil society.

In this perspective, the current thesis, through the analysis of the dynamics and changes that have characterized the fashion and clothing industry, has examined and demonstrated how the Italian and Chinese ones are committed to pursue an ethical and sustainable development. Without the ambition of being fully exhaustive, the new vanguards in the afore-mentioned industries depicted in this script states now the connection (or, at least, the attempts) between fashion multinational corporations and new consumers pools, both more oriented to cooperate and coordinate their own interests respect to the past.

Finally, the environmental practices, initiatives, policies, regulations, and certifications that characterize both the current and future sustainable growth of the Italian and Chinese fashion industry affirm how its ability to address multiple concerns represents an effective and efficient competitive advantage in a global market determined by volatility, allowing it to create both sustainable and profitable eco-friendly and people-oriented products and above all to implement and pursue a transition towards a green and circular economy. Furthermore, the research carried out in this dissertation demonstrates that the efforts made over the years by environmental organizations, value-driven consumers, NGOs, and pioneering enterprises in the development of responsible attitude have contributed to giving a concrete expression to these issues allowing the adoption of an innovative environmental production model in accordance with the political, social and economic characteristics of each country. In this regard, the various nations' interpretations of a green and circular economy emphasize how, on the one hand, in Western countries such as Italy, the sustainable shift of business models emerges as an essential tool for environmental protection to obtain new commercial opportunities and a competitive edge on the market, on the other hand, in China it is perceived as an environmental strategy that needs to be developed as part of a larger national policy aimed at improving not only the industrial sectors but also the entire socio-economic structure of the country, developing an ecological culture based on the principles of green development and thus of eco-sustainable and qualitative production.

Therefore, the present study aimed to highlight the reasons and drivers that have encouraged the Italian and Chinese fashion industries to be more concerned and committed to social and environmental improvement rather than just to mere economic growth, thus managing to effectively integrate the three main pillars of sustainability while ensuring an ecological transition.

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