UNDERSTANDING THE PROBLEM

The textile-fashion is one of the Made in Italy excellence field; it is composed by a diversified, specialized and complete industrial chain with many small-medium companies widespread on the national territory or concentrated in the industrial districts (Biella, Carpi, Castel Goffredo, Como, Prato, Vicenza, etc).

Focusing on the productive-distribution chain analysis, it firstly stands out the chain disintegration and the factories delocalization in order to increase turnover - neglecting the gradual impoverishment of the know-how - and afterwards the strong impact on the environment due both to chemical products and massive energy consumption, particularly water. Therefore fashion is responsible for a dissipative attitude owing to its proposal of short-life materials (synthetic fibres) with high environmental and energy costs. A green and consumers health care attitude suggests natural fibres (cotton, silk, linen, hemp, etc), without chemical treatment, since they are carbon neutral, 100% biodegradable, more comfortable and healthier.

The Eco-sustainable fashion uses natural raw material and non-toxic dyes, it is environmental friendly, it respects the wisdom of artisan, it is a local engine, it is ethically certified and it develops its total traceability. The supply chain has to be shortened in such a way that design, production and sale phases are localized in the same place with the consumer involvement in both the conception and the production parts. The co-creation enriches the purchase act with an emotive experience and the on demand production also contributes to avoid waste; in this way the new consumers, educated about eco-sustainability, are able to influence producers and stylist’s choices and launch a new eco-trend. The core assumptions are client as a creator of value together with a new “quality” concept in relation with the quality of life; this feeling will raise the delight to wear a knitting item that it brings with it a cultural plus and the certainty of performing an act of care for the environment.

Exploring the opportunities

The definition of a service as proposed solution required an intense research activity through different field, from the raw materials industry to recent innovative business model. The research activity tried out to define the opportunities and the elements that allowed us to design an innovative service.

First was necessary to specify the possible suppliers able to produce raw materials in line with the project aims. Different firms, as Ecotech and Milfkofil, were contacted to explore the potentialities of new eco-materials available on the market. The natural raw materials, as well as the local suppliers, were also taking in account as a possibility. Aim for our service was to search the best solution able to provide eco-friendly materials reducing, as much as possible, the environmental impact of the provision. One model taken as reference was the “km 0” food chain, which is the promotion of the local products that do not have to travel long distances. The idea was to apply this concept to the fashion industry, avoiding the travel of the clothes from manufacturing to the shop.

Another step was the analysis of the Shima Sheiki machine. The innovation of the service designed is based on the potentiality of a knitting machine to produce a dress in a reasonable amount of time. This machine is the core of the project that allows the production on-site and, as consequence, the possibility to unify the manufacturer and the shop in one space. The production on-site required also a washing process, also in this case, the suppliers, as Miele, was taking in account.

Defined the needs for the production step (knitting machine and raw materials), the research activity was conduct on two different aspects. One aspect was related to definition of a business models in order to organize a series of shops under the same brand. Different solutions are taken in account as the definition of franchising-like model or a network of independent business licensed by the main company. The second aspect was related to the design of the service. In order to design the final service in the shop each step, from the choice of the clothes to the delivery, was considered. In this phase the crucial points was in the grade of personalization of the clothes achievable by the customers. The opportunities inspected ranged from a completely personalization to a reduced personalization based on a meta collections.

Finally also the social aspects are taken in account, trying to figure out the possible target and its involvement in the sustainability issue. This research was basically done making an analogy with the customers of the Bio food industry. The project ended with the final proposal as well as with a definition of a Brand and a logo able to sum up all the issues encountered.

GENERATING A SOLUTION

Given the premises explained in the previous sections the proposed solution goal is to re-organize and optimize the supply-chain for the fashion industry.

The proposed solution takes in account the whole process, optimizing as much as possible every single step and providing a framework to support the creation of a sustainable fashion industry. This is the starting point to change the attitude of the customers and make them more conscious about the environmental issues.

To achieve this goal the project proposes the creation of a company, SMILE, which creates and supports an eco-network able to connect sustainable yarn producers and eco-shops, the local fashion engines. In this eco-shop, production and sale will be merge, creating a on-site, on-demand service that deeply change the purchasing experience.

This innovative structure will be tested with a pilot shop that embraces the SMILE philosophy to validate the model before starting the franchising network.

To fulfil the requirements, the project takes care of the yarn provision selecting only suppliers that meet high environmental standards. Moreover the suppliers should be able to provide a periodic restocking of little quantitative of sustainable and high quality yarn, in order to match the needs of a on-site production. The quality of the yarn is a key factor in the production of valuable clothes and help making them appealing regardless of the production methodology that distinguish the process proposed.

The innovative way to produce clothes on-site and on-demand is a very important point from the waste reduction perspective since it allows to produce only the items that are actually sold. When in fact a customer enters into the shop, he chooses the model and the materials from a catalogue, then he will select a few add-ons in order to create a basic customization of the product. Finally, when the order is placed, a machine will proceed with the item creation. Every produced cloth will be associated with its own identity card (Virtual DNA) containing detailed and specific information such as production methods, used materials, environmental footprint and a related stories about the ideas that led to the collection and the item design. This will both guarantee the complete product traceability and provide a richer purchasing experience.

This production model requires changing also the way the goods are delivered: the customer is no more able to pick-up the items when he leaves the shop. On the contrary, when the items will be available, the customer could choose if to have a direct pick-up in the shop, or if using a home-delivery system provide by sustainable transportation. A workload simulation of the shop shows that the items could be delivered within three days even in the busiest period of the year. This aspect makes the methodology appealing not only for the customers more involved with the environmental issues but is acceptable also for the mainstream customers.