Team C

SUBPROJECT TITLE

Ethical Couture

TEAM DESCRIPTION

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ABSTRACT

The Ethical Couture exploits a new path for the design, production and sale of fashion items. The project aim is reduction not only in term of cloths waste, that are often unsold and stored in depository ready to be sold on discount, but also in relation to energy consumption and chemical products. Following these aspirations we develop a service which is a sustainable alternative for the knitting industry, proposing best quality garments with a low environmental impact.

Our core peculiarities are: the on-site production, by which we can reduce the distance between suppliers and final consumer; the on-demand manufacture in order to decrease the unsold goods; a meta-collection that goes beyond the seasonal turnover; local suppliers which are able to provide high quality natural fibres avoiding chemical treatment also in the dying phase; transparency of every step in order to obtain a total traceability of every single cloth.

The distinctiveness of the service is the eco-friendly approach combined with the most innovative technology that is able both to link the meta collection designers to the single shop, and to give a plus value to the purchase through the identity card, a certificate which allow consumer to have access to the garment whole information. We will propose a modular web-based interface and great fashion engine, to link designers, clients, suppliers and local producers. With that new architecture we will create a networked industry, where quick response and flexibility are the keys values. The

project can be define as an hub of technology at the service of the environment, producing what it is needed, where it is needed, when it is needed.

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 outsourcing 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

In order to sieve different solutions and design an innovative service, an intense research activity was developed through different field, from the raw materials industry to recent innovative business model.

Since the project aim is the reduction of environmental impact in the entire fashion chain, the first research step was direct both to the exploration of new eco-yarn available on the market (i.e. milkofil, yarn come from nettle, wood, etc.) and to the identification of raw material local supplier. Following this goal, we get through different fibre innovative producers, as Ecotech and Maclodio with which we discuss an hypothetic yarn supply together with the feasibility of our project from an entrepreneurial point of view. Concerning the factories outsourcing it has also been pursued a comparison with the "km 0" in the food sphere, in order to apply this concept to the fashion industry, avoiding both the chain lengthening and the gradual impoverishment of the know-how.
After that the analysis of the Shima Sheiki machine, software and devices programming allow us to explore the potentiality of the Shima knitting process and to design a fast and high quality service that can be able to reduce time and waste and to develop an on-site production. The on-site and on-demand manufacture required both knitting, washing devices (i.e. Miele washing machines) and the design of a collection that can be suitable for an easy and quite vast personalization. Relating to the grade of customization, achievable by the customers and feasible in term of cost and time, the opportunities inspected ranged from a completely personalization to a reduced one based on a meta collection.
Defined the supply, design and production steps, we focused on the business models and specifically were investigated solutions as a franchising-like model or a network of independent business licensed by the main company. We proceed with a market study, based on an analogy with the Bio food customers, trying to figure out the potential catchment area and the people appreciation for eco-friendly fashion brand.
Finally, it has been planned the whole service, focusing on every single phase, from the choice of the clothes to the delivery, and trying to detail them as deeper as possible; therefore the final proposal was enriched with the definition of a brand and its strategy.

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 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 company 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 littlequantitative 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.