Fas.P.OnSite Project Report
Team A

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Contents

1   Introduction

1.1   Purpose

The purpose of this document is to illustrate the vision behind the **Fashion Production OnSite** *(Fas.P.onSite)* project. This report is divided into the main areas of interests: *business*, *place*, *production* and *service*; in the last section three case studies are described.

1.2   Fas.P.onSite project description

The *Fas.P.onSite* project aims at innovating the idea of retail store, crossbreeding it with the different phases of the productive process; in particular it shall merge design, production, distribution and sale in the very same place, creating not only a urban factory but also the 21st century boutique.

The experience of choice, design, production and purchase of a knitwear is completely renewed: the customer is involved in the creation of a fully customized, hyper-personal piece of garment, which is then produced, on-demand, in just a few hours and potentially customized further on.

Technologies are the necessary foundations for a unique customer experience: design, dressing room and accessories advising are assisted by specialized computer systems.

2   Report

2.1   Business

The *FasP.onSite* project is established on the new unique business model of product-service organization (**urban knitwear shop-factory**) concentrated in one physical place, which includes all stages of the production process: from **co-designing** of the fashion product together with customer to selling the finished goods. This business continuity and integration gives a lot of advantages for this really innovative model:

1. Customer is directly involved in the most of all processes that can guarantee a so-called **co-creation of value** both for producer and for customer.

2. Production starts from Engineering (Design) to Order phase which allows to reach a tailored and almost pure customization and to make the inventory costs very low (because there are no finished products in inventory).

3. **Experience marketing** (based on customers purchase experience), the high level of customization, the usage of on-appointment business model and virtual marketing (in case of creating on-line services) make available covering of niche market and establishing a reputation of a high-service unique fashion boutique or trendsetter-company with intellectual property for innovative methods of marketing, communication, service, production and distribution.

4. Supply chain integration is a possible solution for a very big problem for Italy: *delocalization of production*; this project can revitalize the reputation of the **made in Italy** brand.

5. On demand production, flexibility of services and **ECO-friendly** production processes guarantee **sustainability** of business.

6. Users should recognize immediately this new knitwear production and this could be accomplished carefully studying a **logo**, which can communicate the originality, the quality and the importance of that new idea of factory-shop. Moreover, it could also be an instrument to communicate and reinforce the **loyalty identification**, fundamental for the good success of this new business.

2.2   Production

The concept of "production", as the name of the project says, is the centre of the whole process and it has to be very clear.

Production is done *on site*, so the production is only a phase of the whole process that involves also design and sale. Moreover it is not the knitwear production as it is usually considered, it is a new concept in which the costumer has a central role and become the designer of her dress (**prosumer**): so we can speak of **self-made design**. In addition, it will surely be an interesting and unique experience for the users, who are involved in an activity that they can't usually do.

Thanks to the new technology which uses a particular scanner system, able to do a virtual model of human body, it is possible to show to the customer how the dress will fit before its realization (**virtual dressing**). Therefore users can have hyper-personalized clothes, assuring an incredible **uniqueness**. In our discussion about this new exclusive **fast fashion** (since the whole process would be done at least in 5 hours), we were thinking about the possibility of personalizing the clothes adding a variety of details: from bottons to zippers, from paillettes to rhinestones, and how to make it in a process in which the industrial procedures and the accuracy of the handicraft production are joined (**industrial art**).

2.3   Service

The aim of the project is to realize a new idea to create and sell customized knitwear exploiting *Shima Seiki's Wholegarment*. Of course for a successful project completion we need the customer to live **a new experience in buying clothes** join our Site. How can we achieve this purpose? It's primary being able to conceive new services in all the selling process phases (Client caught; Design; Production; After sales). These services contribute to the so called **customer experience** creation because they are:

- An unconventional sales channel (**On line clothes personalization**);

- The base to realize the user "**prosumer**" (producer + user) concept in a program of a co-creating service;

- The mean to improve production process, staring from the moment the measures are taken from the client;

- A way to create an atmosphere a luxury shop is expected to reproduce;

- The services powered by new innovative technologies thanks to which we can take competitive advantages against the "traditional luxury atelier".

The vision we have to focus on consists in a new richer fashionable way of buying clothes. Maybe staring from the possibility of a **on line clothes personalization** creating a web site directly bonded to the site.

The production process, then, has to include a **virtual prototyping phase using Magic Mirror and Body scanner**. The 3D body scanner, which were adopted on an experimental basis in many shops in the UK, are able to measure the most important features of a physical person, creating a virtual imagine on a computer screen. **Professional shop assistants or fashion designers directly**, can help the client in creating the knitwear, extensively modified thank to these technologies.

An alternative way preview seeing the products can be obtained implementing **tools for Virtual reality**. They works really strictly like a magic mirror does but using **virtual avatar** like those of "2nd life".

Easier services to implement are the **consultation of catalogues** where is possible to find products proposed by our designers, but not yet realized, and **search**

in data base collecting all the clothes created in the past (maybe on client located in the selling area).

However customer experience does not finish with clothes design and production. Innovative solutions powered by different companies can be used to extend this "journey" in our Site also occupying the time spent on the production. An example is given by the **Multi-sensory cabin developed by IBM**. The system provides a zone of different sizes, set as a reserved area for fashion shows, with the help of video, audio and olfactory technology. The various components communicate through the information system developed by IBM. Devices allow video objects materialize before the eyes of the customer in their three-dimensionality, the audio to hear sounds and finally technologies olfactory perception of scents. Thus, following a fashion show of a particular designer, the client will be surrounded by the scent of our brand, and time to time, he will see how "real" details of what he chose and something more: bags, shoes, scarf, coat, and so on.

It is not too strange to imagine organize fashion shows on our Site, maybe in the evening, when the shop is closed.

Eventually it is basic to realize a Lounge Bar/Restaurant where to relax before the final testing of the dress[1].

2.4   Place

Since "OnSite" is the core issue of problem setting, dealing with the distribution theme brings us to focus on the topic of **place**: it's a matter of location rather than logistics. Production and diffusion should shift from a framework of de-localization (on which most of today's fashion production is based) to a one based on **re-localization**.

A strengthening of the main feature of our new concept, i.e. **identity**, could come from using its urban setting as a tool to sell, communicate and create innovation and uniqueness: in order to fix a high-level image, first concept appearing could happen in luxury locations, just to spread afterwards to great cities in proper sense. The physical, visual, spatial relationship between a clearly characterized factory-store and its host city could become its first mean of material communication, in order to make it become a **trendsetter**.

Stressing the uniqueness of the product by fixing the uniqueness of the place is also a strategy to show how much our project is relying on the idea of **genius loci**: maybe having a jump beyond the usual and abused concept of **made in Italy**, the clear characterization of the product by its differentiation among one shop and the other could manage to reach the maximum level of identification between fashion and the place where it is created.

The act of tying up this project to its place can moreover link it more strongly to its market and its production workflow (paradoxically, these two links have been considered till today as two reasons to practice de-localization, so this change could be another innovative point); a correct setting of **distances** becomes absolutely

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[1]Other ideas to be developed are: Interactive window (by Ralph Lauren); SCM, CRM, Retail Management technology integration; Virtual cabin (by Prada).

important to create uniqueness and value for the product: so as the market size can be defined by precise location in one city, rather than in a shopping mall or on a luxury ship, the same way the product features could depend on a precise area from which yarn and raw materials should come (thus practising an extension of the **km0 model**, based on finding on place or in close areas every material or component or necessary skill to produce precise goods or services).

Even if we agree about giving priority to a direct and physical way of interacting between customer and store, we've also considered the possibility of providing a home delivery service from every specific store; it aims to create a stronger form of **fidelity**, which could also be improved by developing less material means of communication such as a customers' **e-community**.

Moreover, discussing about lower-scaled issues, it became clear that, in order to make this new textile innovation possible, it is necessary to have a metamorphic space, designed to adapt to the different functions hosted inside. These functions could be very different, shifting from particular events to fashion courses, so spaces should be flexible and suitable to all these occasions. Great importance is given to the **aesthetics** of the places, not only in the sale space, but also in the production and design ones, because of the presence of the customer in every phase of the process.

3   Case studies

3.1   Zagato

As far as case studies are concerned, one of the fitting examples comes from the passengers vehicles market. Altough very far from the fashion production, the *Zagato* company has lots of common points with our idea of business and personal customization. *Zagato*, also known as *SZ Design*, is an historical automotive and design italian company establibished in 1919. His aim is to realize innovative design for top range sport cars, such as Maserati, Ferrari, Bugatti, Bentley and Aston Martin, taking into account the main concepts of aerodynamics and avant-garde styling.

There are many common points with the product and the service we will develop: first of all *Zagato* vehicles are for a **niche market** that desires almost a unique product. The customization aspect is fundamental, because of the process of mediation between the customer and the design department, in order to realize something appealing for the single user. The creation of the final car involves a great amount of employees, coming from industrial design, automotive and mechanical engineering and computer sciences. The reason for that is the need to design an innovative product taking into account artistic impression, feasibility studies, computer rendering for aerodynamic improvements.

In the fashion market, examples of customization already exist, but quite far from our idea of business. Just to mention a well-known case study, we could

briefly talk about the *NIKEiD* project. On Nike website the customer can produce his own personal pair of shoes, choosing an initial design and changing materials, colors combination and putting some personal ID on it. Moreover the website allows the customer to personalize his foot dimensions, in order to mix the fashion appeal of the product with a real improvement in walking and running comfort.

The real innovation introduced by our concept of fashion-boutique deals with the customer experience: he won't buy just his own product, as in NIKEiD project, but also entertainment, differentiation and social status.

3.2   Factory Boutique Shima

Wajima Kohsan Ltd. opened a "*Factory Boutique Shima*" in Wakayama, Japan at the end of 1995; this shop combines a production factory and a retail boutique, creating a revolutionary mash-up. This hybrid is possible thanks to *Shima Seiki*'s technology, which creates one-piece three-dimensional garments directly on the knitting machine. The customer is required to be in the boutique for 1 or 2 hours in order to select a certain style from a sample book, select color and yarn, be photographed in a studio and be provided with the composition which simulates the sweater design on him/her.

The knitwear is then produced and further customized with an embroidery machine in about a week: since garment production is entirely based on digitally programmed data, quality remain high and consistent throughout repeated processes. Prices range from 15,000 to 30,000 Japanese Yen (at present, 125 - 250$). In this kind of shop there's no technological tool such as the "magic mirror" or a computer-based 3D avatar used to design the garment: for such reason the *Factory Boutique Shima* is an innovative yet rudimental project compared to *Fas.P.onSite*.

3.3   IntelliFit

Intellifit Corporation has been founded in 2000 in Plymouth Meeting, PA and designs, develops and markets consumer measurement technologies that address clothing industry challenges. Intellifit has automated the process by which consumers are effectively and efficiently measured and then matched with garments that fit them best.

To achieve such goal **IntelliFit Virtual Fitting Room** (VFR) uses a 3D whole body anthropometric scanner that can take measurements of a fully clothed individual. VFR is: *fast*, only 15 seconds are required to perform the measurements; *accurate*, a human body is described by more than 200000 measures (with precision up to 1cm); *safe*, the measures are taken by 196 low power antennas whose signals are less than 1/350th of the power of cell phone signals and they do not penetrate the skin; *unobtrusive*, customers are completely dressed while inside the VFR; *easy to use*, customers are guided with on-screen step-by-step instructions.
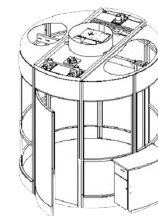
Customers are then advised about which clothes both fit well (*Intellifit Sizing Solutions* technology) and are available in the shop; this makes also possible to shop on-line and off-line with full confidence in fit.

4   Keywords map