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Sustainable fashion paradigms: local and makers productive models

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Abstract

The Fourth Industrial Revolution is leading changes in the general way of thinking and producing, which are shifting and reshaping industrial dynamics. In fact, Digital Technologies are allowing progresses in terms of velocity, quality, flexibility, security and efficiency (ACIMIT Osservatorio, 2017). As a consequence of these new paradigms, new business models are rising in order to refresh the production, the consumption, the transportation and the delivery systems (Schwab, 2016). Fashion System is very sensitive to this new assessment due to its fast-moving nature, so that it has to face new sets of challenges (Keller, et al., 2014). The problem is that technological innovations in this field seem not to reach high improvements. This is due to two main reasons: on one hand, its fast-moving nature isn't the perfect feature for a long-term improvement; on the other hand, the tendency to invest where it is possible to patent and the fashion design are not so eligible since it is not simple to see an evident proof of technological improvement in an aesthetical product (Gregori 2016). For this reasons, it is one of the main design fields which needs a consistent rearrangement able to modify the whole system, taking into consideration that it is sensitive to changes under many points of view, which in this paper have been identified within the phenomenon of local and makers, who are starting to *use* a start-up model to build as stand still identities.

The research wants to investigate how it is possible to describe new productive models in this specific scenario, taking into consideration that there is a great effort in applying the concept of sustainability, digitalization and flexibility into the Fashion production. This application can be addressed to the craftsmanship level, which is passing through a renewed interest. In fact, the recent financial crisis has led to a progressive scepticism towards capitalism or techno-capitalism increasingly "financialized"

(Demichelis, 2015), and it has shifted the attention towards small and medium-sized companies. In this way, the revaluation of artisanal know-how and activities, more economically and socially sustainable (Micelli 2016), becomes a ground of rediscovery and an attractive field to develop products contaminated by the recent achievements of a digital approach.

This renewed interest in the local business model is one of the todays' phenomenon answering to such issues. As a matter of fact, the revaluation of small local activities is reviving because of their economical, human and environmental sustainability features, added to the possibilities given by new technologies which allow a sharing between local and global know-how, resources and instruments addressed to the design of products (Imbesi, 2014). In order to reduce the waste of raw materials, money and time, local manufacturing is able to offer a bespoke production system, answering the new necessities of costumers in terms of experience and products uniqueness. Under this up-to-date order, new technologies play a key role.

The same technologies, in Fashion System, evolve into a tool that craftsmen in small and medium enterprises can use to renovate their skills, without dismissing them, and to build a new concept of business in which makers become protagonists. In this way, a hybrid business model is conceived: craftsmen are switching into digital artisans, accompanying traditional methods of production with the support of the new technological solutions. These innovative local and maker model take the customers experience into account and give them new product solutions, focusing on the aesthetical features and versality as well, and granting a continuous quality of improvements and uniqueness, respecting the environmental aspects too. In fact, the promise of a big growth from small innovative initiatives is also accompanied with the response of new necessities in terms of time-to-market, flexible customization and on-demand production (Amed et al., 2019). Indeed, these innovative production structures take care of the customers experience and give them new products solutions, focusing on the aesthetical features and versality as well, and granting a continuous quality improvements and uniqueness. These are the reasons why these business models can be considered as the response of the contemporary reality, taking into consideration that all the parties involved are fundamental for a fashion panorama consisting of local and makers realities. In doing so, they can prosecute a sustainable growth, being more focused on responding to the necessities in terms of time-to-market, flexible customization and on-demand production (Amed et al. 2019).

Speaking of which, Chris Anderson explained how small artisanal enterprises, with an involvement of high technological tools, could be considered the beating heart of this new revolution, since that they might set up as entities able to make high customized products but in a smaller scale (Anderson, 2010). According to the features of these new ways of conceiving design and production, the structure of the

start-up perfectly fits to new possible fashion business models related with the digital fabrication technologies.

Keywords: Digital Fabrication, Fashion Business Model, Local, Makers, Start-up

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The Fourth Industrial Revolution into the Fashion System

The Fourth Industrial Revolution has determined multiple changes in the production system like never seen before, due to fact that digital technologies are evolving faster than in the previous revolutions. Indeed, these technologies have improved not only in terms of machinery, but most of all in terms of communication dynamics, since they made it possible to establish mutual communication between machines and/or human involved into the process, which determine a real new phenomenon.

These have brought to rethink the general way of thinking and producing, in order to build new and more appropriate industrial design methods. In fact, Digital Technologies are allowing progresses in terms of velocity, quality, flexibility, security and efficiency (ACIMIT Osservatorio 2017). In specific, these goals can be seen as:

- velocity: time market reduction;
- quality: improvement of process and waste reduction through real time production monitoring;
- flexibility: wider range in the supply of product;
- security: reduction of inactivity and cyber-attack;
- efficiency: reaching a higher productivity.

In order to realize all these aims, it is necessary to rethink the design process at any level starting from the ideation to the production; in fact, as argued by the main theorist of this revolution, Karl Schwab:

"We are witnessing profound shifts across all industries, marked by emergence of new business models, the disruption of incumbents and the refreshing of production, consumption, transportation and delivery systems." (Schwab 2011, p. 7)

The Fashion Design system is very focused on the production and it is potentially exposed to these kind of changings, except that technological innovations seem not to reach high improvements. This is due to two main reasons: on the one hand, its fast-moving nature isn't the perfect quality for a long-term improvement; on the other hand, the tendency to invest where it is possible to patent and the fashion design are not so eligible since it is not simple to see an evident proof of technological improvement in an aesthetical product (Gregori 2016). For this reason, it is one of the main design fields which needs a consistent rearrangement which could modify the whole system, taking into consideration that it is sensitive to changes under many points of view, which in this paper have been identified within the phenomenon of local and makers, who are starting to *use* a start-up model to build as stand still identities.

Changings paradigms: digitalization and consumers

In terms of changing paradigms, urbanization is another hot topic. In fact, today the most part of the world's population live in big cities, the fastest growing ones of which are in India and China. At the same time, these countries are involved in the production of almost one-third of global women's apparel, which is destinated to grow in the next future following the increasing urbanization and determining higher revenues so that the relation between urbanization and income across countries is striking (Spence et al. 2009).

Exploring other dynamics related to consuming, we can assert it has never been developing the speed it is developing now and one of the major game-changers is digitalization. (Hagelberg 2017). In fact, it gives costumers immediate access to any kind of product and the chance to buy anything with few clicks, so that the time spent on shopping is reduced and costumers behaviours are significantly modified. The possibility to know more and more about products and producers, compare prices and exchange experiences and opinions given by digital platforms such as social media, company websites, e-commerce and online forums, also gives costumers more awareness and a different attitude in shopping products.

On the other hand, digitalization, in terms of the rise of social media, has disrupted the traditional Fashion System because, if, in the past, the launch of new trends followed the seasonal timing of Spring-Summer and Fall-Winter collections, today their life-time has been drastically shortened according to their popularity on social networks.

In this shifting scenario, costumers play a key role as they are constantly allowed to choose among a huge variety of trend proposals, so to determine their success or their failure. This is why, across a wide spectrum of industries, companies have come to realize that their customers are central to their business and that costumers information is one of their key assets (Berry et al. 1997). So that companies have started collecting and processing their data from user accounts to social networks, using algorithms to interpret them in order to achieve information about costumers preferences (product typologies, colors, price, etc.) and use them to re-asset their offerings so to reach higher profit.

The thriving of this new business model, based on online interactions, is having serious consequences on the physical store, which has lost his historical function of shopping place.

Anyway, the brick-and-mortar store is not dead; it just plays a different role now (Herring et al. 2014). In fact, it has been reinvented as a brand display, a place where customers can come into contact with products and verify them, helped by shop assistants which are trained to guarantee them a personalized, unique experience hard to find online.

As consumers, the millennials (people from 16 to 34 years old) pay a particular attention to such new features of Fashion System, becoming more aware and critical non only about the customer service and the design of products, but also about their quality, the commitment of the brands, the workers quality life and the fair trade. In this way, millennials' expectations are different from those of previous generations, and companies will need to rethink their brands, business models, and marketing accordingly (Barton et al. 2012).

Bringing back the attention to local enterprises

Since the local business model is responding well to many of such issues, it is living a renewed interest and all its dynamics related to fashion business need to be understood as the opposite concept of *global*. In fact, if the global business model is referred to a global market and offers customers the chance of having the same products and living the same experiences from all over the world, the local one is related to a limited geographic area and to its inhabitants, shaping its features in order to satisfy their needs and their belongings in a local identity. In fact, reacting to the cultural flatness imposed by globalization, people desire brands which root them to their home culture, respect and represent their tastes (Dumitrescu et al. 2010). Furthermore, global brands are trying to rearrange their business promoting a *glocal* business model, which takes into account the local issues while providing a global offer (Dumitrescu et al. 2010).

According to these new dynamics related to the market demands, local businesses play a favoured role. In fact, as the local business model is focused on the protagonist role of the brick and mortar store, it allows the direct interaction between the owner of the business itself and the final clients so that if the former has the chance of studying and interpreting the local market trends through an immediate collection of customer feedback and humours, the latters can take advantage of a physical place where they can be in contact with the brand, having the possibility of directly expressing their necessities.

The advantages of a local business are not only in meeting the desires of its community, but they are also related to its local production, which involves local suppliers. For this reason, the success of its activity is reflected on the whole supply chain so as to determine a local economic growth. Furthermore, as there is a direct interaction between customers, it is possible to arrange productions on demand, based on the users' specific needs in terms of products and quantities. In this way, local companies are also able to reduce not only their inventory but also their waste in terms of finance, time and raw materials necessary for a standard production. Moreover, thanks to the reduced volume of the business and the facilitated contacts with suppliers, they could fulfil the requests from customers for customized items, allowing a be-spoke system and offering, in this way, superior services to the clients (Dawar et

al.1999). In addition to these positive aspects, it is possible to recognize several others more linked to environmental issues.

First of all, as the supply chain is located in the same area of the business, the costs of delivery are reduced, impacting positively on the environment owing to the reduction of gas emissions derived from the transportation of goods. A remarkable example of this is the Spanish shoes brand Lofs, born in the Alicante province in 2014 and based in the Mediterranean area, where all the raw materials are sourced and the whole supply chain is located.

Working close to suppliers also gives the possibility of frequent quality controls on the production and the improvement of the manufacturing standards thanks to the direct and continuous interaction between designers and manufacturers.

Finally, as the production is based on small quantities, manufacturers are able to spend more time on each product, guaranteeing a higher quality of the finished goods, increasing at the same time the reputation of the brand. It is the case of the Italian handcrafted straw hat brand Montegallo, launched in 2013 by Alice Catena and characterized by excellent artisanal designs and finishings made in Montappone, the most important hat production district of Italy and Europe.

But the local model is not devoid by disadvantages, as the quantities produced are smaller, the costs of production are higher as well as the cost of labour, if compared to the offshore manufacturing wage rates. Also due to the small volume of production and the relative small revenues, suppliers do not invest in innovative machineries. In this way, they limit the possibilities of working and finishing the products, denying workers the chance of learning about new techniques and improving their skills, so that manufacturing is mostly based on traditional methods.

For the wellness of the whole supply chain in local business is consequently important to increase its revenues. With regards to this, the owner of the business could make use of different tools.

The first to be mentioned is the Internet, as it can guarantee low or no costs and online visibility to companies through websites, e-commerce and the presence on social media. This provides the brands with the prospects of reaching a wider audience and therefore promoting their products. On the other hand, the physical presence of the brand in the brick and mortar store increases the likelihood of running customer loyalty programs, allowing one-to-one marketing initiatives with the final aim to retain clients. To achieve this objective it is also important to give back to the community, since todays' customers pay attention not only to products, but also to the social commitment and the ethical values promoted by the brands.

For the same reason, the slow fashion movement is emerging, promoting a different attitude towards fashion. Starting from the paradigm of localism, slow fashion products are generally produced in local venues with local resources, such as skilled artisans, local factories, or locally produced raw materials

(Jung et al. 2016). Also it is a fair trade oriented movement, which promotes fair workers' conditions and encourages the choice of timeless designs instead of the latest trends, so as to maximize the life time of goods, which might be made of high quality materials and in fewer quantities. In these terms, the slow fashion movement is also an advocate of traditional craftmanship, celebrating the authenticity of one- of- a- kind products made by manual labour and satisfying in this way consumers' needs for exclusive products in order to generate a superior perceived value over fast fashion brands (Jung et al. 2016).

From *Tailleurs* to *Fashion Makers*: evolution of the productive systems

The Western culture from 1789 to 2009 endured through three Industrial Revolutions which completely changed the productive methods as well as their way of thinking. In fact, switching from an artisanal production to an industrial one, production went through the establishment of a design system able to transfer any artisanal products into an industrial matrix. This change is more evident in the fashion system, since to every revolution a specific new system in which their characteristics have been expressed through the product and the production correspond. In fact, before 1789 the clothes productivity was managed by *tailleurs* in which the production of *one-off-pieces* allowed to make specific size-patterns and to personalize the product with garments according to the taste of the client. This procedure was developed according to the artisanal skills of the craftsman and it was addressed to an aristocratic European clientele, who started to use the fashion product as a means of expressing a status symbol (Morini 2017). When the first industrial revolution accursed, the innovation of fabric production and tailoring allowed the clientele to enlarge to reach the masses and this led to the beginning of the new productive methods. In fact, the invention of the sewing machine, in which its success started to increase during the second revolution after 1840, granted to facilitate and to accelerate the work of tailors, whose production was more similar to the modern *made-to-measure*. This process guaranteed specific patterns in sizes and in style. This was the beginning of the Fordism period that established the so-called *assembly-line*, which was applied between 1857-1878 in the fashion production. This event completely changed the way in which the clothes were made so far, switching from the artisanal production to an industrial one. Since then, a standardization in terms of sizes and style has been increased and masses have been allowed to access the market. In this dimension the main figure is the group of professional technicians who are in charge of a single phase of the process. This productive model started to be enriched during the Third Industrial Revolution, in which the figure of designer appeared to be in charge of the ideation of style. This model became a real system in which designer and technicians collaborated, giving rise to the *ready-to-wear*.

Nowadays, the logics of the Fourth Industrial Revolution are creating a new system for a contemporary industrial one, thanks to the culture of open source, digitalization and of crowd-sourcing (Imbesi, 2014). Digital fabrication technologies transformed both the social aspect and the classic approaches of design. As a matter of fact, the passage from the First to the Fourth Revolution has determined a shift from personalization to customization practices, making it possible to produce highly variable products. This social switch is due to the fact that fashion enterprises have implemented technologies for personalization practices – allowing to choose from a series of pre-set options, such as types of fabrics, colours and pattern/texture, which do not guarantee emotional attachment:

"Things do not become personal because we have selected some alternatives from a catalogue of choices. To make something personal means expressing some sense of ownership, of pride. It means to have some individualistic touch." (Norman 2004, p. 217)

People, according to Norman, opt for customization practices since they offer the possibility of obtaining a different object from others and this makes it possible to establish an emotional relationship between users and objects. In a more democratic and globalized world, in which everyone potentially has the opportunity to own the same object, the desire for customization is always appealing to the user. This satisfaction is one of the aims of the contemporary fashion industry, taking also the favourable circumstance to modernize and extend itself to a wider market.

It is clearly compressible as it is possible to satisfy this need of customization using a digital artisanship approach that is closer to craftsmanship methods than the industrial ones because it enables a real and strong connection with the final user, capable of expressing specific product needs. In addition, the recent financial crisis has led to a progressive scepticism towards capitalism or techno-capitalism increasingly "financialized" (Demichelis, 2015), and it has shifted attention towards small and medium-sized companies. In this way, a revaluation of artisanal know-how and activities, more economically and socially sustainable (Micelli 2016), become a ground of rediscovery and an attractive field to develop products contaminated by recent developments of a digitalization approach (European Commission, 2015). Silvia Venturini Fendi points out that the strong desire of customization and exclusivity has brought the attention back to some ancient jobs and the never forgotten techniques as the only response to this unicity and individuality desire (Venturini Fendi 2011).

By saving and handing down the know-how of craftsmanship and applying digital tools and experimentation, it is possible to define a new fashion designer as a fashion maker, whose role is to e make high customized products but on a larger scale.

Velasca is good example that represent the new Italian approach. It is an Italian formal men's shoe brand, founded in 2013 from an idea of Jacopo Sebastio and Enrico Casati. At the beginning, the founders realized there was a gap in the market between fast-fashion low quality labels and luxury labels with high quality but over-priced shoes, In addition, the they realized that it is difficult for Italian craftsmen to exploit their talent online and expand into international markets. So they decided to set up a business of hand-crafted men's formal shoes balancing their high quality with a more competitive price.

They started the production inside a tiny artisanal workshops in the heart of Italy, the century-old tradition of making shoes is handed down from generation to generation. Their products are handmade in the region of Marche, from start to finish.

Starting with a very small production, in which all the members of their families were involved, they began selling and promoting their brand through Facebook and word of mouth. Today they are growing internationally thanks to the intervention of P101 SGR, Milano Investment Partners and other venture capitalists. The success of the company is given by the good implementation of digital technologies and canal. The main point for Velasca is to leverage innovations with online shopping, so that the company organization can cut out the middle-man and can connect artisans to the people. In this sense the innovations are connected to the capacity of shortening the distance between Velasca and clients in the distribution and communication process: no middleman inflates the price. Sebastio and Casati are convinced that this is how a market should be: with direct communication, similar to a chat with a close friend. This is possible thanks to digital technologies that gives the possibility to Velasca to be in contact with clients and vice-versa, using social channels and technologies that can help them in getting the two main objectives expressed before. Obviously, technologies are not enough to obtain success: in fact, Sebastio said that passion is a fundamental ingredient:

"I'm very passionate about digital and new technologies. We keep on looking for new ways to make the artisanal world easier for everyone to access".

The Italian industrial model: a virtuous example of innovation

The organizational system of the Italian manufacturer is based on an articulated subdivision of production that involves small-medium independent and highly specialized enterprises. Each of them focuses on a single activity or on a series of small and consequential tasks that define a specific process phase. This collaborative structure is better known as "Industrial Districts" – in Italian as known as "Distretti Industriali" - and allows to cover the entire production of the artifact, thanks to the territorial proximity between the companies. This proximity facilitates a direct interaction between the actors

involved in the process, by allowing a production able to transfer the cultural aspects of the territory and the qualities of Made in Italy on a product, creating a strong aesthetic value for the final consumer (Morace & Lanzone, 2010). This is the most widespread form of relationship between enterprises in Italy, in which the involved factories are concentrated on a production for third-party, that virtuously manages the financial aspects to start the production and acquisition of raw materials, as well as timing and operational phases. Therefore, such a complex model requires a strong coordination, generally carried out by SMEs taking care of the design and organization phases, as well as the countless logistical and commercial aspects.

The complex management of these aspects and the effects of the health crisis due to COVID-19 have partly challenged this model which, although still valid for its relational aspects, today can only be effective by widening the boundaries as much as possible to involve disciplinary and technological sectors apparently far from the specific production process (Di Lucchio, 2005).

The increasingly advanced digital tools can help SMEs with reduced management skills to deal with these problems, but they pose the question of how the connection between product and territory can remain alive, and how it is possible to design "the traceability of products in trans-territorial supply chains, making transparent the path followed by the different processes up to the final marketing" (Rullani, 2016, p. 15). This scenario forces Design to rethink a system that preserves the positive relational aspects - emphasizing them through the digitalization of the supply chain and optimizing times and phases - and that develops a g-local approach to design, promoting the social, cultural and territorial aspects intrinsic to the product system.

Start-up model within makers and local entities

The approaches to business made by makers and local enterprises could be well associated with the new dynamics of start-up. These entities play a remarkable role in the panorama of these two realities, as it is possible to recognize the intrinsic nature of innovative business models in their DNA.

Defined by Nordstrom as “hot” or “young companies”, they are contraposed to the “heritage”, “established” and “proven” brands (Amed et al. 2019) because of their attitude strictly direct to the market and the consumer. In fact, start-ups do not simply base their business on the proposal of new products, but they assume the observation of society and people changing behaviours and needs as the first step.

After identifying criticalities, the design and the development of products come to a solution to the problems found, so that - as argued Elinor Renfrew - intuition and awareness of fashion directions is at the base of the commercial success of a start-up label (2009).

Led by a solo founder or few entrepreneurs, the start-up business beginnings are modest, as the founders themselves are involved in each step of the project development from the research of materials to the engagement of suppliers, professional and legal consultants, from the promotion of the products to their placement on the market. When they have reached a sort of stability, the financial funding starts to be crucial to move forward and become bigger. As Paul Miller observed, there is an increasing demand for investors of start-ups (2011): even if in most cases their founders have no choice, apart from investing their personal economic funds or asking relatives for financial assistance, only a few of them have the fortune to be supported by venture capitalists or, more frequently by angel investors.

Despite its humble beginnings, the aim of every start up is to create a scalable and sustainable business model in order to grow larger, re-organize the work systematically and to have employees for the re-distribution of the roles. Pursuing this objective, it is vitally important to continuously test the market with smaller interaction among fewer customers and the products developed in order to perceive their validation/rejection and to eventually modify them in order to reach the complete satisfaction of the market. The continuous improvement is a very distinctive trait of start-ups, also characterized by a fast rhythm of development and re-invention in order to survive the market. In fact, they are exposed to a high risk of failure due to problems related to the feedback from the consumers or the lack of funding. As a result, only a small percentage of start-ups will survive the initial phase reaching success and the revenues of the established companies.

This discourse can be summarized in steps that can be adaptable to any fashion realities, according to the specific internal system and need: problem solving, marker test, customer response measurement, idea verification, learning, focus and versatility reinvention. Each of these steps is fundamental to be applied by enterprises which desire to grow towards a bigger company system and to define a structured business model. In fact, the application of these steps can guarantee customer satisfaction, which is the core of any fashion business as argued by Michelangelo Simonte:

“The value creation for costumer is fundamental. The knowledge of market and develop the correct strategy is the only possible approach that a startup can take to grow in the market. The customer satisfactions, the cure for particulars, the service are fundamental activities to succeed and be a wealthy startup.” (2018, p.79).

It is evident that the only way to reach this market growth is to continuously focus on customer satisfaction and their change in taste using a constant research and a connection with the users. Time and economical resources are fundamental to apply a strategic process, which aims to reach both a

market and an enterprise growth. However, makers or local realities may have a lot of difficulties in doing so. In fact, their low-cost matrix is one of the main limits and the most basic, but successful strategy for expanding the application of viral marketing strategies through Internet and the social media, both to reach potential consumers and understand their tastes and preferences.
A virtuous example can be given by “ITALIAN ARTISAN”, an Italian start-up created by exploiting the power of connection of the internet.
It was founded in 2015 by David Clementoni, who belongs from a renowned Italian business family.
Betting on the esteemed reputation of Made in Italy, he has built a portal where it is possible to put international designers in contact with small Italian artisan and both with distributors in order to launch professional collaborations. As explained in the Italian Artisan website:

“Our mission is to give accessibility to made in Italy heritage by mixing the right innovative tools to the authentic personal approach. We work everyday to build an ecosystem based on deep human values, long term relationship and sustainable growth for the community itself”.

So Italian Artisan is an innovative tool useful to let entrepreneurs and designers from all over the world meet the experienced Italian craftsmen and their tradition, because, as David Clementoni himself said "In a digital age in which innovation runs along the tracks of artificial intelligence and human cloning, the return to traditional values is the new luxury" (Clementoni, 2019).
With his words Clementoni remarks the importance of a balance between innovation and tradition in a successful contemporary business model and in this sense VEGEA, which is another Italian start up, could be considered a fortunate example.
Founded in 2016 in Milan, the company acts with the aim to promote the integration between chemistry and agriculture through the development of new eco-sustainable products.
In fact the core business of VEGEA is in developing plant-based alternatives (in particular from the valorization of wine waste) to fully synthetic oil-derived materials for fashion, furniture, packaging, automotive & transportation.
In this way the start-up not only answers to the necessity of innovative sustainable solutions but also offers products, such as the vegan leather, which are the perfect raw materials for italian traditional craftmanship due to their features.

Makers and local: a more sustainable model

As mentioned before, one of the fundamental aspects for start-ups, which are focusing on local or maker manufacture, is the satisfaction of consumers. They are constantly switching their tastes and therefore

creating a more variable and instable market. The reason is due to the two main phenomenon of the new millennium: globalization and digitalization. As a matter of fact, these have allowed to create a larger and expanded communication between people and the possibility of potentially knowing all the fashion products available worldwide. This determines a more in-depth consciousness of what is going on and what is available on the market. In addition, tastes and targets inevitability change every time it is possible to virtually reach the product. The same consciousness has also influenced the awareness of more eco-friendly issues. Global and digital phenomenon in fact have spread the importance of such topics not only for professionals but for consumers as well. The great step ahead is related to the fact that sustainability in fashion is no longer just seen on an environmental level but it is also recognized at the economic and social one. Hence for enterprises it is essential to start to consider all these aspects related to culture sustainability as development of new products, mitigation of the environmental impact and supply chain control, including the respect of employees rights (Magni, Noè 2019). In this sense, it is possible to describe the local and makers start-ups in the fashion system as the favourite models in building a more environmental, economic and social sustainability. In fact, these kind of companies employ people who can have good working conditions and make the company socially sustainable. Furthermore, some of them have become the renewed protagonist of local business model and of the slow fashion movement, since the economic crisis brought these entities under the spotlight once again because they are considered as more economically sustainable (Demichelis, 2015).

So, from the return to the brick and mortar store, the very symbol of local business, to the spread of the slow fashion movement, we can recognize the signs of a significantly change in the market demands, referred mostly to a reaction to the consequences of globalization.

Infact, if such a business model has satisfied consumers desire of products and experiences common to people all over the world, and sometimes despite from their real quality and value, today their necessities are changing and are addressed somewhere else.

In particular consumers are re-discovering the importance of their belongings, re-evaluating their culture and their local traditions and using them as inspiration for the production of goods of high standards and exclusive design. In fact, after celebrating fast fashion and the chance it offered to own a big quantity of low cost products, people are more focused on values such as quality and authenticity, becoming also more aware and critical about the commitment of the brands, the workers quality life and the fair trade.

If the slow fashion movement perfectly fit such requests, the possibility of a direct interaction between the costumers and the brand, offered by a local business based on a brick and mortar store, gives to the firsts the chance to immediately satisfy and verify each of them.

After celebrating fast fashion and the chance it offered to own a large quantity of low cost products, people are more focused on values such as quality and authenticity, becoming also more aware and critical about the commitment of the brands, the workers quality life and the fair trade.

This can be considered as a sign of the economical-sustainable inefficiency of the actual fashion system assessment that needs to re-describe its structure and to give importance to aspects that were considered secondary in the past and therefore they might focus more on the customers' feelings, the changing dynamics related to the promotion, the consumption of trends and their reduced life time, instead of a continuous insane economic growth. Indeed, these innovative local and maker production structures take the customers experience into account and give them new product solutions, focusing on the aesthetical features and versality as well, and granting a continuous quality of improvements and uniqueness, respecting the environmental aspects too.

These are the reasons why these business models are considered as the response of the contemporary reality, taking into consideration that all the parties involved are fundamental for a fashion panorama consisting of local and makers realities. In doing so, they can prosecute a sustainable growth, being more focused on responding to the necessities in terms of time-to-market, flexible customization and on-demand production (Amed et al. 2019).

Advanced skills for a future *design manager*

Although the process of digitization of companies is not new, today the limits and measures imposed to cope with COVID-19 have given a strong impetus to companies in improving the development started with the advent of the first digital technologies. The passage from the Third to the Fourth Industrial Revolution has in fact been characterized by an increasing interaction between man and machine and between the different actors involved in the design process. During the second half of the twentieth century new technologies imposed the need to create and manage production processes capable of generating knowledge (Di Lucchio, 2005); today, instead, changes within the different production sectors impose the birth of new business models that challenge the current systems of production, consumption, transport and shipping (Schwab, 2016). This necessity is configured today in the creation of a widespread management system that makes use of the technologies of Industry 4.0 as an instrument to valorize, spread and improve the productive and territorial values of the complex supply chains. The aim is to generate a business model based on the optimization of resources, the optimal integration and management of processes, and the communication to the customer of tangible and intangible values. It is in practice to realize the "smart factory" defined by Atti as:

"the integrated digital management of the technical, productive and managerial processes of the traditional enterprise in which the typical enabling technologies of Industry 4.0 are applied" (2018, p. 61).

In a scenario that needs the requirements of knowing how to design an artifact, coordinate the process, develop the product value and the complete logistics management, the figure of the designer or product manager is no longer sufficient. It seems inevitable the need to train a design manager who, through the approaches and technologies of Industry 4.0, can become the designer of this "smart factory".
All this must be framed within the current Italian context, in which the few structured projects are not able to guide and systematize this type of manufacturing transformations. The main cause is the lack of access for SMEs to knowledge of modern techniques and digital systems, research on supply-chain management or the impossibility to obtain competitive results, despite a satisfactory knowledge of technologies such as cloud systems, CNC machines, laser cutting and 3D printing (Ministero dello Sviluppo Economico, 2018).
Therefore, there is the need to think about the training of the design manager not in a punctiform way and addressed to the resolution of a specific problem, but proposing a supply chain model that can integrate different ways of technological development: the digitization of the archive, the process optimization, the introduction of 3D modeling software and the digital dialogue between design, production, distribution logistics and sales.
The background and the experiences highlighted during the discussion have described the general contemporary trend of a production system that, by virtue of the many facets that need to be taken into account, must be well structured, organized and managed in terms of digital innovation. In this sense, the future training of designers must be conducted by the Academy that, in agreement with SMEs in the specific fashion sector, can transfer the tools needed to manage the system as a whole and not according to single compartments.
The skills acquired and applicable to real contexts will have to cover the entire management of the digitization process to develop on three different degrees:

- the process: the application of digital technologies not only in the low value-added phases, but also in the most characteristic phases of the process, as a tool for the enhancement of practices from the craft (Micelli, 2011);

- logistics: transport management that implements the traceability of the product, ensuring perfect knowledge of where and how it is made and thus highlighting the qualities linked to the territory that characterize Made in Italy;

- the storytelling: using digital platforms to virtuously tell and make recognizable the peculiarities of Italian production, without taking for granted that the general consumer knows the cultural context at the origin of the product (Bettiol, 2015).

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