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## Customized Servitization as an innovative approach for renting service in the fashion industry

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### ABSTRACT

Fashion Industry has proven to be one of the most polluting industries that exists nowadays. Finding innovative ways to tackle its unsustainable development is a challenge that deserves attention. In the context of the 20-weeks program “Innovation for Change” a possible solution to the challenge was found. Design-driven and action research approach were encouraged in order to find innovative ideas. This paper shows the partial results for a customized servitization for renting services in the fashion industry. The implications of an asset being transformed into a service changes the concept of products consumption and vary according to the final customer.

*Keywords: Fashion; innovation; servitization.*

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### INTRODUCTION

Nowadays, the textile industry is based on a linear economy (Rathinamoorthy, 2019). Large amounts of non-renewable resources are consumed to produce garments that are often used for a limited period. The amount of waste material produced with this linearity is critical. A large amount of the textiles that end up incinerated or sent to landfills, the underutilization of garments and the lack of recycling systems make this industry one of the most polluting ones (Lehmann, C. et al, 2017). Changing the way this industry is developing has the potential to tackle negative environmental and social impacts. Therefore, finding innovative ways to tackle the unsustainable development of this industry is a challenge that deserves attention. (Bocken et al. 2014)

Many respectable initiatives and intentions have appeared recently as a way of response to this problematic. With the aim to make international efforts to apply circular economy to fashion, the tendency now is to encourage business models that increase the use of clothes, the usage of clothes made with renewable materials or the recycling of existing ones. Within this general framework, the program Innovation for Change (I4C) has pushed for the development of innovative ideas for this specific context.

This paper aims to illustrate the concept of a customized servitization approach for a renting service in the fashion industry that appears as a possible solution for the challenge of applying circular economy to fashion (Morrison H., Petherick, L., Ley K, 2019). In the long term vision, this type of innovation in the industry tackles

the utilization of raw materials and favours the reduction of garments production (Fortuna L., Diyamandoglu V, 2017). The authors use the partial results of the solution ideation for a fashion renting service to evaluate the possible application of this approach and reflect on its consequences. What are the implications of an asset being transformed into a service in this industry? With the process of ideation, the most feasible scenarios for the application of this type of approach were recognized. The implications vary according to the final customer being addressed and depend greatly on the creation of awareness about sustainability issues. Some possible scenarios were drawn in order to understand these implications.

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### THEORETICAL BACKGROUND

In order to understand a possible application and the implications of customized servitization in the fashion industry, some key concepts about servitization, circularity, and design-driven innovation need to be addressed.

#### *Servitization*

The concept of servitization was introduced in 1988 by Vandermerwe & Rada that referred to it as the increased presence of complete market packages that were customer-focused. This type of approach focuses on the combinations of products, services, support, and knowledge to create new values and meanings to

offerings. In this sense, the value added comes by adding a service to products. This type of approach often appears as an effect to financial challenges, product variation, and customer demands (Mathieu, 2001; Oliva & Kallenberg, 2003). Academics have been encouraging companies to focus on the customer end of the supply chain for over decades. What is more, as the modern world continues to develop technologies, it is important to use them to inform, improve usage and maintain & repair actions. Technological development enables a higher level of service delivery, tailored to the client's product wishes (Lightfoot & Baines, 2013). This becomes an incredible opportunity for sustainable development as awareness about environmental issues is becoming a key issue in consumers and clients. In this sense, servitization appears as a current and upcoming trend in the area of innovation. Offering services rather than selling products provides great encouragement for sustainability. In terms of environment potential, servitization approaches are promising. (Tukker, 2004). In the long term vision, this type of innovation tackles the utilization of raw materials and favors the reduction of product production (Fortuna L., Diyamandoglu V, 2017).

### *Circularity*

The concept of circular economy aims to redefine the perception of growth and consumption. As a consequence of this redefinition, the circular model builds economic, natural and social wealth. The notion of circularity has strong philosophical and historical origins. The circular economy model synthesizes several major schools of thought. These schools of thought include ideas of performance economy of Walter Stahel; the Cradle to Cradle design philosophy of William McDonough and Michael Braungart; biomimicry explained by Janine Benyus; the industrial ecology of Reid Lifset and Thomas Graedel; natural capitalism by Amory and Hunter Lovins and Paul Hawken; and the blue economy systems approach portrayed by Gunter Pauli (Ellen MacArthur Foundation, 2017). Thus, the concept of a circular economy provides:

“new opportunities for innovation across fields...product design, service and business models, food, farming, products.” (Webster, 2015)

In order to change the linearity of the fashion industry that is being addressed with this research, concepts of circularity need to be implemented as solutions. Socio-economic and cultural macro trends are challenging the current linearity of the industry and innovative business models are appearing. One defining macro trend behind the efforts for innovative and sustainable fashion involves the consolidation of sharing economies and cooperative consumption. This type of consumption refers to the expansion and reinvention of exchange, donation, and swapping practices between people not previously

associated (Botsman & Rogers, 2010). Todeschini et al, recognize that the adoption of a collaborative mindset:

“...allows the creation of a supporting ecosystem that drives resource and knowledge sharing promotes the diffusion of sustainable practices, and ultimately allows business model experimentation.” (Todeschini et al 2017).

### *Design-driven innovation*

The concept of design-driven approach to innovation is a relatively new strategy in comparison to other dominant innovation strategies like user-driven innovation and technology-driven innovation. (Verganti,2009). In innovation practices, user-centered design methods have helped to explore backgrounds for inspiration, but have left too many important sources of vision in design unused (Koskinen et al, 2012). Thus, design-driven innovation starts by taking a distance from consumer and market and focuses on the creation of product meaning. Only in later stages of development, it considers users and markets. This may mean changing definitions about why a product is used and how it is used. The early research phase is important in this type of innovation process since it gives a concrete and general understanding of paths where product meaning can be shifted by design.

With these general concepts in mind, customized servitization for a renting service appears to be an interesting approach to include the concepts analyzed. This approach implies the acceptance that assets are no longer sold but are collectively serviced by networks that compromise the participants involved in the industry, shifting the meanings about why an asset is used and how it is used. The shift of offering services rather than selling products provides reassurance in sustainable terms. What is more, this type of innovative approach requires a high level of commitment, cooperation, and coordination of many stakeholders. This may represent one of the main challenges to be foreseen and addressed. (Achterberg, 2019).

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## **METHOD AND DATA**

The research conducted in this work was done in the context of the fourth edition of the program Innovation for Change. (I4C) which is an initiative that aims to utilize advanced technologies to help solve problems of social interest linked to the United Nations Sustainable Development Goals (UN SDG). The 20-week program involved the participation of three institutions: Politecnico di Torino, Collège des Ingénieurs Italy and CERN IdeaSquare; and it encouraged ideation, design-driven, and action research approaches in order to find innovative ideas. The strategy in this type of research has the purpose to solve a particular problem and to produce guidelines for effective application of the solutions. Three main phases

were carried out in the process: a research phase, an ideation phase, and an evaluating phase.

First, the research phase helped develop a general understanding of the problematic and definition of core concepts to deal with. This phase was divided into primary and secondary levels for the collection of data and information; the primary level focused on the literature review for the identification of problems, current trends, and possible business goals. The second level relied upon interviews, questionnaires, and meetings with stakeholders of the supply chain.

The second and third phase of the work involved ideation and design-driven approach. In these stages, general solutions were considered and evaluated. Design-driven innovation pushes for a shift in the way specific products are used. In the case of this research, cooperative consumption and fashion sharing ideas prevailed as the most feasible ones in today's context. The idea of connecting many of the stakeholders comes as a mean to implement a customized service for a renting model in the industry. Since interest and collaboration of stakeholders were identified as one of the main issues to be addressed for the development and improvement of the idea, a differentiation of ways of using garments as service was first identified and potential target customers were defined.

After carrying out various interviews for primary data collection, the categorization of possible stakeholders to customize the service for renting garments in the fashion industry included: businessman/woman, traveling businessman/woman, holiday traveler. Then, the possible fashion elements that could interest customers were defined. This categorization included: suit garments, accessories and some items of casual wear. It is important to note that references for benchmarking were identified as case studies to define the main activities to be tackled by the service. The benchmarking exercise served as a mean to define the possible field of action and means to do so in future development stages of the idea

## RESULTS

The references, benchmarking, market analyses, primary and secondary data obtained with this research helped analyze the difficulties of the complex chain of the industry and the characters involved in it (see fig 1). The definition of a stakeholders' map and their interest in the topics aforementioned was the principal outcome of these first stages of the research carried out. (see fig 2)

In addition to fragmentation in the stakeholder map and supply chain of the industry, the research phase highlighted that technological barriers are consistent and often not economically feasible at the moment. What is more, the data collected highlighted that other sustainable solutions are difficult to implement because of customers' mentality and awareness or lacking entrepreneurial culture.

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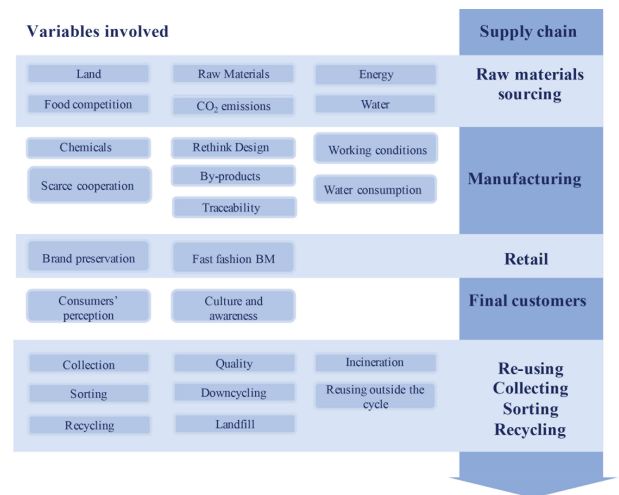


Fig. 1: Supply Chain and Problematics identified

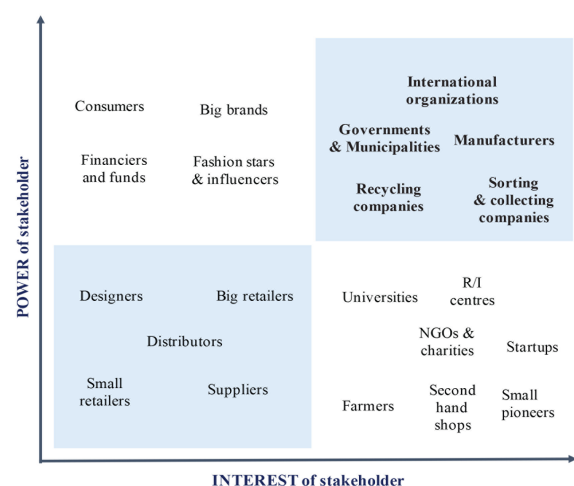


Fig. 2: Stakeholders' map

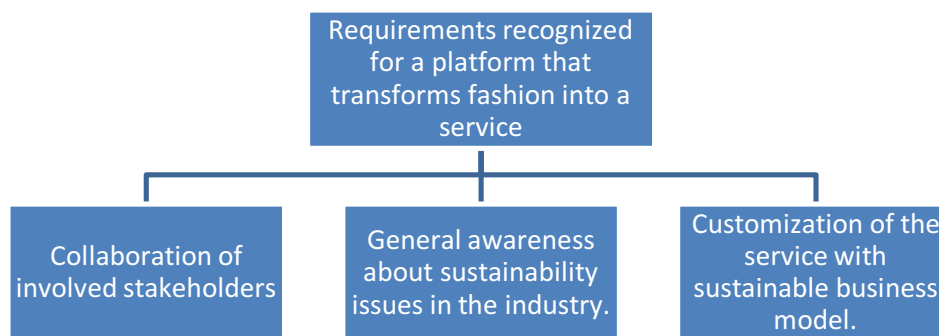
The research highlighted activities that would help promote circularity in the fashion industry and the principal ones recognized are: reusing, collecting, sorting and recycling. The concretization of the idea appears as a platform that creates synergies between the stakeholders analyzed and the activities that promote circularity. This

platform came as a result of the ideation process and the analysis of the first research phase. The proposal takes into consideration the external environment and proposes an innovative business model.

In particular, a digital platform is foreseen to provide fashion as a service, through the implementation of clothes rental. The solution is based on the collaboration of several stakeholders: customers, local shops-brands, operation partners (e.g. laundries and couriers). As for the business model, it relies upon sustainable pillars: increase in the utilization of the garments, encouragement of a more conscious treatment of them in the loop, enhancement of slow fashion and local frameworks, cut down in textile flows to landfills. In the idea proposed and evaluated, the user would be able to book, use and return products in a stress-free manner and from local sourcing.

Moreover, after the usage, through the platform the following processes would be organized: cleaning and ironing, quality control, delivering back to local shops, and responsible circular solutions at the item's end of life (e.g. recycling, re-using, repairing).

Nowadays fashion sharing businesses provide many types of services to customers and stakeholders. However, this servitization is not customized in all cases, few solutions are at the disposal for the customer target identified in the ideation phase and there is still research to be done about the innovative business model that could cover sustainability issues. In this sense, the chosen business solution would be going beyond the existing services.



**Fig. 3:** Challenging aspects and requirements to be considered

## DISCUSSION AND CONCLUSIONS

The potential benefits of adopting servitization as an approach in the fashion industry are various and shared along the supply chain and final users. The data collected in the first phase of the research guided the ideation phase and pushed for an approach that could change the meaning of ownership of garments. This transition of concepts has the potential to radically change the development of the fashion industry.

However, some challenging aspects of this transition need to be recognized from the primary and secondary research carried out. The key findings of the research phase suggest that some requirements need to be met for the idea to be validated. The collaboration of the stakeholders, the creation of awareness about sustainability issues and the customization of the service with a sustainable model appear as the main ones. (see Figure 3)

This paper has illustrated the problematic and the route taken for the ideation of a possible solution and application of it in the fashion context. The collection of data in the research phases of the development of the project proved to be essential for the ideation phases. From the general idea of customized servitization for

renting in the fashion industry, different scenarios could be investigated and validated in further steps of the project. Future research directions are expected to test the interest of the market through questionnaires and pilot projects, the willingness to join the project by the partners through meetings and interviews, the preparation of a digital platform to connect stakeholders and users.

The main challenges to overcome for the application of this type of approach to the industry start with the generation of awareness about the problem and the linearity of this specific industry. Besides, a major bottleneck to consider is the complexity of the collaborative framework needed to implement the service. The complexity is given by the number of actors involved (local shops, fashion brands, couriers, laundries, seamstresses), the extension of the ownership of the products, the operations of a reverse supply chain; which refers to the flow of goods from customer to vendor, opposite to the traditional way of delivering. To carry out further development of innovative ideas in this specific area, new competencies in management and changes in the corporate culture are required to embrace design-driven radical innovation (Ceschin, 2012). If the level of awareness about sustainability issues rises in the industry and competences and knowledge about the new approaches that could be implemented are placed as a

key effort of the involved stakeholders, a very tangible impact could be achieved with the implementation of these innovative approaches. Since the tendency is pulling towards sustainability and servitization, the application of this type of approach seems to be promising.

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