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CIRCULAR FASHION: DEVELOPMENT COMPETENCIES AMONG UNIVERSITY STUDENTS

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The article focuses on the development of competencies of students studying in the Fashion Design and Technology specialty to better understand the principles of circular fashion as part of the circular economy and expand the possibilities of their application.

Key words: circular fashion, competences, sustainability.

“It is essential that we take action on circularity today, even though we don't yet have all the solutions for creating a circular fashion system. It's only through testing and trying that we will find them.”

- MORTEN LEHMANN

Chief sustainability officer, Global Fashion Agenda [6]

INTRODUCTION

The fashion industry has become one of the most polluted and environmentally harmful industries today. More and more often, authoritative research and public centres are voicing the need to take measures to reduce this impact on the environment [1]. The strategic solution lies in the implementation of circular economy principles through recycling, redesign, and reuse. The clothing industry in Moldova operates on the principle of a linear economic model and is not yet ready to apply the principles of a circular economy in everyday practice, because Moldova does not have a waste and product recycling system. The government has initiated the preparation of a legislative framework for clothing manufacturers, obliging them to introduce product labelling indicating the fibre composition; initial waste producers and waste holders are required to collect separately waste. Extended producer responsibility is introduced by law, obliging manufacturers to assume responsibility for each product created.

PURPOSE

The aim of this work is to analyse the ways of transforming fashion industry from linear to circular model. Evident it has to come from education system by development of competences about resources rational using and respectively techniques of reuse, redesign and recycle, or eco-design principles of long-term life products.

RESULTS OF THE INVESTIGATION AND DISCUSSION

Actually, on the different levels is discussing the conception of transition to circular economy. This provides careful attitude to all types of resources and changing values of things. These challenges completely attributes to the fashion value chain which include different stages: design, production; services; marketing;



retail; end of use/life (e.g., reparation/transformation/recycling) by creating the new business models in circular economy [2].

Many scholars state, that each year millions of tonnes of clothes are produced, worn, and thrown away. Every second, the equivalent of a rubbish truck load of clothes is burnt or buried in landfill. To solve the problem, producers and consumers must redesign the way clothes are made and used. Building an industry that designs products to be: used more, made to be made again and made from safe and recycled or renewable inputs [1].

Circular design for fashion can become the norm. The concept is based not only on redesign the products of the future, but also transform the systems that deliver them and keep them in use. Circular business models designed to keep products in use – such as rental, resale, repair and remaking – allow companies to make revenue without making new clothes and represent an opportunity for new and better growth in the fashion industry.

The “Towards Circular Economy” report by the Ellen MacArthur Foundation, world leader entity in this field, defines Cycle Economy as “an industrial economy that is restorative by intention and tries to make products, components and materials retain their maximum utility and value at all times, distinguishing between technical and biological cycles. This new economic model tries to decouple global economic development from the consumption of finite resources” [1].

In other words, a circular economy is restorative and regenerative by design, and aims to keep products, components, and materials at their highest utility and value at all times. In a circular economy the value of products and materials is maintained for as long as possible. Waste and resource use are minimized, and when a product reaches the end of its life, it is used again to create further value. Circular economy aims to reduce, reuse and recycle of existing materials.

The transition from linear to circular economy and special to circular fashion is inevitable nowadays [2]. It will be developed from both sides, first of all authorities have immense impact by creating regulatory system to business environment, and very important to create conscious consumption of goods between ordinary people. Such changes could be developed among young generation in educational institutions.

It has to be discussed and created right attitude to the impact of fashion industry about environment, as is environmental degradation, case of overexploitation of resources to produce new objects with a reduced life cycle, which creates landfills, which in turn affects water quality. The high demand for cheaper clothing among young people as a way to gain self-confidence has a huge impact on the fashion industry, which is reflected in the exploitation of labor in less developed countries. The recourse to fast fashion brands leads to cultural homogenization. The global expansion of fast fashion threatens cultural clothing diversity, erodes unique traditions, and raises concerns about the preservation of local craftsmanship, celebrating differences, and the potential to commercialize authenticity.

We attempted to study the attitude of the younger generation towards issues of sustainable economic development in relation to the consumption of all types of resources in everyday life and the problems of clothing consumption were



examined in detail [3]. The survey showed that 88.6% of respondents are familiar with the principles and understand the meaning of sustainability. This is positive, since young people know what sustainability is and what ideas are being promoted to achieve it. Some points of interest were achieved. On the question how they usually dispose of old clothes, young people answered that they applied different methods, having multiple answers: donate - 97.1%, recycle - 31.7%, throw away - 25.7%, or sell - 11.4% [4]. Following the analysis of the survey, it was observed that the terminology of sustainability among young people is well known, because in recent years, it is being talked about more and more in schools, universities, on the Internet, social networks, being a good solution for a problem for sustainability. A big share of respondents opts for durability, sustainability and methods such as recycling, donation, etc. Approx. 73% currently use to sustainable approaches in organizing their life processes. Similar results were obtained by authors on the base of Ukrainian students' survey [5].

Thus, the development of competencies in circular fashion to ensure sustainable development is a pressing task and there are general prerequisites for the formation of these competencies among students studying in the specialty of clothing design and technology.

Our research and analysis of other universities' practices have led us to formulate several recommendations for implementing eco-friendly practices: prioritize purchasing necessary items to minimize unnecessary consumption; support sustainable brands with transparent supply chains that prioritize environmental responsibility; invest in high-quality clothing that will last longer, reducing the need for frequent replacements; choose clothing made from natural organic fibers such as organic cotton, linen, or hemp, which have a lower environmental impact than synthetic materials, extend the life of clothing by following proper care instructions, washing items less often, and repairing them when necessary; consider searching for used and vintage clothing at thrift stores, consignment shops, or online platforms that specialize in selling used clothing; responsibly dispose of unwanted clothing items through donation or recycling programs to minimize waste.

As a result, specialists are turning to eco-design in fashion, which involves a comprehensive approach to sustainability, including materials, production processes, supply chain practices and consumer engagement initiatives aimed at minimizing environmental impact and promoting ethical and socially responsible practices within the industry. The eco-design approach influences various aspects of a product, including: reducing the use of materials; easy recyclability - the incorporation of easily identifiable, recyclable or reusable components facilitates disassembly and recycling processes; the preference for unique or derived natural materials, or biodegradable materials, which are friendly to the environment. Sustainability - creating sustainable products and using environmentally friendly materials extend the product's lifespan. Reusability, recyclability and multifunctionality - products should serve multiple purposes, be suitable for reuse and be made from recyclable materials. Creativity - technological innovations can maximize the sustainability and efficiency of products. Design for waste reduction.



Reducing the amount of textile waste generated is possible with the help of low-waste design. Here, designers have three options to consider: *Up-cycling* is a method of reusing and transforming textile waste into new items through creativity; *Zero Waste* is an innovative design technique that allows the elimination/minimization of waste during the design phase of a garment through specialized software; *Reconstruction* is the process of deconstructing unsold or used clothes and their subsequent reconstruction to produce new clothes.

Sustainability is one of the most important design principles. A key aspect of design is sustainability: The lifespan of the garment is considered when designing for longevity. Design for longevity emphasizes the mental and physical elements that connect with the garment and extend its lifespan. Finally, design for recyclability helps create opportunities for "infinite transformation," which ensures that products are never thrown into landfills.

Considering the issues of eco-design, they fit perfectly into the content of training in the specialty of design and technology of clothing at all levels of pre-university and university education. This requires a change in emphasis on sustainability issues. At the same time, the formation of the correct attitude to sustainability issues from the position of rational use of all resources also fits into the content of training both in the classroom and outside the classroom.

CONCLUSIONS

The transformation of the industry to move towards a new circular fashion industry requires changes at the systemic level with collaboration between all participants in the product life cycle (designers, technologists, merchandisers, consumers, post-consumers) and innovation at every stage. Existing activities focused on sustainability and circular economy aspects must be complemented by real actions at the strategic level by authorities, business environment and in education.

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