A 2.3 – ROMANIA

Industry Professional Interview Report

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1. INTRODUCTION

In Romania, the field research has been conducted between May and June 2023. The interviews involved professionals from the fashion and textile industry, having various roles and positions industry: business owners, managers, product designers, product developers, market analysts, buyers, merchandisers, quality assurance engineers, researchers, digital designers, supply chain manager, quit a wide range of professions from the fashion and textiles industry.

Our research benefited greatly from the diverse perspectives and insights provided by the varied group of professionals we interviewed. These individuals represented different aspects of the fashion industry, which is characterized by a wide range of professional roles. All 11 interviewees were affiliated with small and medium-sized enterprises, from the entire country and abroad. The interview questions were collaboratively developed by the project partners and posed to the participants using a structured format, resulting in the data presented below.

2. METHODOLOGY

The methodology of this report is based on qualitative research in the form of interviews with fashion industry experts of Italy. During this process, ten respondents have been interviewed in a face-to-face or recorded modality.

A preset form to record the answer of the respondents was used through Google Forms. The structure of the interview contains three sections: "Demographic questions" (7 questions), "Use of Artificial Intelligence within companies" (20 questions) and "Overall opinion of AI impact on the fashion industry" (6 questions). The target group of this interview is represented by fashion and textile industry professionals, from any point of the supply chain, as well as retail. The scope of the interviews is to identify how AI is currently being used by fashion and textile companies in the market of today, the level of technological readiness and their overall opinion on how AI can impact the industry.

The information received during the interviews is subject to further coding and analysis, in order to structure and conclude all the information received. The coding is created based on eight of selected relevant indicators: Company activity; Digital solutions currently used in companies (and how they are being used); Reason to use AI in a company; Benefits/Advantages of AI use; Concrete results of AI use; Overall opinion on AI use; Concerns/challenges about using AI; Implementation of sustainability practices in the fashion industry process chain. The questions with a closed character are analysed based on numerical data processing through the Google Forms software.

The coding indicator list includes the following topics:

- Company activity
- Digital solutions currently used in companies (and how they are being used)
- Reason to use AI in a company
- Benefits/Advantages of AI use

- Concrete results of AI use
- Concerns/challenges about using AI
- Overall opinion on AI use
- Implementation of sustainability practices in the fashion industry process chain.

3. RESULTS

3.1. Demographics & Company Background

Respondents are young professionals, more than 70% of them have between 0- and 5-years activity in the field, and 27% have more than 10 years in the field. The interviewed professionals work in various companies, some of them are described bellow;

Katty Fashion is an innovative bespoke womenswear services company based in NE Romania. They have gained recognition for their Zero Pre-Consumer Resource Waste Strategy and unique digital transformation path, positioning themselves as a leader in sustainable practices. With a focus on the slow fashion movement, Katty Fashion designs clothing with minimalist aesthetics, multiple ways of wearing, and adjustable features to cater to different body shapes. They prioritize the use of deadstock fabrics and emphasize the quality of their clothing. Katty Fashion's commitment to ethical manufacturing and community improvement further strengthens their profile.

Sulfat is a brand that places a strong emphasis on producing low-impact sustainable clothing. Their use of organic fabrics and natural organic dyes, created in-house, reflects their commitment to minimizing environmental impact. By focusing on sustainable practices, Sulfat aims to contribute to a greener fashion industry and provide eco-conscious consumers with fashionable options.

èN Studio Design is a creative design studio specializing in multi-functional product design, particularly bags. Their practical solutions cater to individuals seeking organization and focus in their daily lives. By combining creativity with functionality, èN Studio Design offers unique and innovative designs that meet the needs of their customers.

Social textile enterprise BRODMED operates within the luxury sector, specializing in the creation of luxury bed linen. Their emphasis on storytelling and attention to quality textile products and materials differentiate them in the market. The enterprise's commitment to research and identification of toxic substances in textile materials demonstrates their dedication to customer well-being and environmental responsibility.

Pepe Jeans, particularly Pepe Jeans London, is a well-established fashion retail company known for its expertise in denim. While it was originally based in London, it has been acquired by a Spanish company. As part of the All We Wear Group, Pepe Jeans focuses on London Classic heritage with a boho twist. By producing only four collections per year, the company distances itself from fast fashion and prioritizes high-quality denim clothing.

Bi ECO FASHION is a niche fashion brand that actively fights against waste and pollution. Their use of ECONYL® regenerated nylon in all their colored garments demonstrates their commitment to sustainability. By combining eco-friendly materials with fashionable designs, Bi ECO FASHION aims to bridge the gap between sustainability and style.

A personalized atelier, MetaWearX, offering a unique combination of clothing personalization through painting and the creation of NFTs and digital fashion assets. Their specialization in both physical and digital realms showcase their adaptability and creativity. This atelier caters to individuals seeking personalized and digitally enhanced fashion experiences.

OCRU Studio places a strong emphasis on embracing the slow fashion movement, indicating a departure from fast-paced and disposable fashion practices. By adopting this approach, they prioritize sustainable production methods and reduce the environmental impact associated with the fashion industry. Their dedication to the environment is reflected in the use of deadstock fabrics, which minimizes waste by repurposing surplus materials. This practice contributes to a circular economy by giving new life to existing resources.

With extensive experience in serving the fashion and retail industries, Bhavana Tech has established itself as a prominent industry leader. The company specializes in providing Retail & Fashion Product Lifecycle Management (PLM) technologies, strategic consulting, and managed services for product design and development. Bhavana Tech's strength lies in its reliable global network of resources, enabling them to deliver premium standards and effective engagement to their clients.

Augustin Munteanu Tailoring is a small luxury bespoke menswear atelier known for its exceptional craftsmanship and personalized service. The atelier prides itself on delivering high-quality, custom-made garments tailored to each client's unique style and preferences.

3.2. Use of Artificial Intelligence within fashion companies

3.2.1 Level of digitalization in fashion companies

100% of interviewees answered they use digital technologies in their companies.
On a value scale of 1 to 5, where 1 represents the minimum level and 5 the maximum level, 36% of respondents fall in the middle (3), while 27% reach the highest level (5) and 18% reach a good level (4). 18% are at the lowest level (1 and 2). Based on the responses, one could appreciate the level of digital literacy of the surveyed professional, as being medium.
According to the interviewees, the use of digital technologies is currently integrated in many processes: the design phase by using digital patterns, market analysis, the use of various programmes such as photoshop, illustrator, procreate, Lectra, Autocad,

Photoshop and Canva Software, PLM, communication with the clients and social media promotion. Other software used are CLO, Blender, Udraper, Clo3D, Procreate, MIDJOURNEY, and ChatGPT.

90% of respondents heard about Artificial Intelligence (AI) being used in fashion, while only 9% did not know about the subject. The interviewees demonstrated in general a good knowledge of the topic, but did not always associate the use of such technologies with AI.

Digital solutions used by companies:

- *soft for development 2 D and 3 D, all communication with the clients, all rapports*
- *In the design phase, digital patterns*
- *Internet for research, news and sourcing*
- *Autocad, Photoshop and Canva Software*
- *machines for production, and we collaborate with a marketing agency for our promotional materials*
- *web tools and databases*
- *Illustrator. procreate*
- *Lectra*
- *PLM.*
- *CLO, Blender, Udraper*
- *Clo3D, Midjourney, Photoshop*

3.2.2. Use of AI chatbots in fashion companies

When asked if they heard about AI Chatbots in the fashion industry, 6 respondents out of 11 answered yes, while 2 never heard of the use of AI Chatbots in the fashion industry and 3 were not sure. 6 respondents out of 11 have used AI Chatbots in their companies.

When answering on the relevancy of AI chatbot for their companies on a value scale of 1 to 5, where 1 represents the minimum level and 5 the maximum level, 72% of respondents consider that is relevant (4 and 5), while 28% falls below (1,2).

6 out of 11 respondents stated that they apply AI technology in their company processes. More specifically, they use it for: research and market analysis or for writing prompts for Midjourney. One company found out it difficult to implement it, since, in the textiles industry, there are too many sizing variables and information that a chatbot cannot take into account and process into an accurate response. They consider that more standards are needed to make the technology feasible for them. Other find it difficult to apply and need to become more conversant with these types of technologies.

Reasons identified as important when using AI chatbots in a company referred:

- *27% for Supply chain management*
- *36,4 % for marketing*
- *45.5% for design*
- *36% for forecasting*

- *27% for data analysis*
- *36% e-commerce assistance*

3.2.3. Challenges, benefits & concrete results of using AI in fashion companies

Only 36% of respondents answered yes when asked if they experienced concrete results or changes in the company using chatbots. In spite of this, 81% consider that AI Chatbot can be adapted to the fashion sector needs, and 77% think they are interested to use it.

Some concrete results identified among the answers provided, are:

- clearer communication, less time needed to create social media content, and voice over to create professional visuals and videos
- much faster to write and better, it was much easier to find information
- clearer and better results on Midjourney designs using prompts written by ChatGPT

The highest challenges identified by 5 from 11 respondents refers to cost (45%) and legal issues (45%). Another important challenge refers to data security in the view of 4 from 11 respondents (36,4%) while 3 from 11 (27%) think that the use of AI chatbot will decrease creativity. 3 out of 11 (27%) have concerns related to understanding and interpreting the results, while only 2 out of 11 (18%) referred to tool integration, data storage or competence of employees.

The biggest benefits identified by the respondents refer to increased performance and better planning and organization of the company's activities (82%) . 7 out of 11 (63%) recognized as benefit the better search for information, and 5 out of 11 (45%) considered as benefits of process automation, fewer mistakes, decreased need for human resources, better customer care, and increased client satisfaction. Only 2 out 11 (18,2%) recognized benefits such as better collaboration between parties, shorter lead time or reduced cost.

3.3. Overall opinion of AI impact on the fashion industry

10 out of 11 (90%) of respondents think AI will change the way fashion is created and sold in the future. All respondents are interested in following the development and exploring possibilities to use such innovative technology in the industry. There are concerns related; however, they believe the information gathered through the chatbots should be inspected and verified to avoid distorted use, property rights and other issues.

72,7% of respondents think an AI Chatbot could be a useful tool for the fashion industry. However, the pertinent opinions came from professionals that are experienced in using AI Chatbot. The most usage is considered to be increased productivity, higher quality, lower cost efficiency in the company, customer service, data research & forecasting, more efficient production, optimization of process, reducing need for human effort, reducing waste, rapid analysis of previous collections, previous sales, previous

practices that some company was using for prototype creation, in design like exploration of

different ideas and prototypes, maybe in customer service and support, for optimizing patternmaking. It could help me search for information much easier.
The most literate responded provided valuable insights referring to the decision-making process, which could be significantly simplified, and it can have a great impact on sustainability. It can help a business shift towards on-demand production and decrease the need for stocks and resource consumption. She thinks that switching to digital fashion will significantly decrease consumption, will contribute to consumer education, and convince them to stop buying irresponsibly. In the case of digital content creators, they can buy a digital asset instead of a physical one, to just take a picture. Why pay hundreds and thousands on luxury clothes, when you can pay 20 dollars and have your picture?
63% consider that AI chatbot functions used in retail and e-commerce could be used to advise the designer process
78% consider that AI chatbots could bring environmental benefits, for example by reducing prototyping (9,1%)

The opinions about the overall use of AI in the fashion industry are:

- *Decrease in creativity, decrease in decision making, uniformization*
- *Production will become even faster, resulting in the worsening of the fast fashion phenomenon*
- *Anyone will be able to call himself a fashion designer*
- *It will not be adapted to the specific needs of the companies*
- *Legal issues regarding design, still a grey area regarding ownership, rights for designs, and like ideas.*
- *Inaccuracy with reality - it's hard to replace physical products with digital versions and be sure it will be as accurate as reality*
- *Amazing technology that we can benefit a lot from. One concern would be the very quick evolution of the technologies available and the challenge it poses to keep p with all the latest developments, especially in a country like Romania.*
- *Costs can be quite high, especially when it comes to smaller businesses. On another hand, this technology can be met with scepticism by the general public, as we still need to work on educating the masses on what AI means and how it is used.*

3.4. Implementation of sustainability practices

Companies are aware of the environmental impact of the sector and are implementing several practices to increase their sustainability. Those are focused on: reducing waste using renewable energy, use of high-quality natural fibres, products tailored made in smaller businesses, zero unsold items, offering repair and adjustments services to our clients, using deadstock fabric, one-size production in order to avoid extra inventory, reusing material scraps or donating the unused scraps to the fashion university, producing limited quantities (about 3 pieces per fabric type), use of ecological materials like hemp, certified cotton, linen and tencel, natural dyes from plants, sourcing in Europe from small suppliers that are ecologically certified, recycle leftover materials and use recyclable materials, reuse packaging or other products (where possible). The

Use of Econyl and recycled polyester, sustainable printing, and many of the processes in-house have been also mentioned.
Some professionals are also in education and awareness raising especially about the importance of digital fashion in the context of sustainability and do believe that this is the future of the industry.

Some examples of technologies used to increase the company's environmental sustainability have been mentioned :

- *3D Design*
- *digital pattern software - LECTRA MODARIS*
- *digital cutting and sewing machines*
- *new sewing machines that use 70% less energy, energy efficiency in the atelier*
- *visor wash technology responsible water use technology for washing jeans*
- *Clo3d - it reduces the need to produce physical samples*
- *Midjourney*

63,6% of respondents stated that they did introduce circular economy practices in their business, while 27% are not sure, signalizing their low capability of recognizing these type of practices.

5. CONCLUSIONS

The extensive field research conducted in Romania during May and June 2023 has provided valuable insights into the dynamics of the fashion and textile industry. The diverse group of professionals interviewed, ranging from business owners to market analysts, offered a comprehensive view of the industry's landscape. These individuals, representing small and medium-sized enterprises, contributed a rich tapestry of perspectives.

The qualitative methodology employed, involving in-depth interviews and a structured questionnaire, facilitated a nuanced understanding of the industry's integration of digital technologies and, specifically, Artificial Intelligence (AI). The respondents' digital literacy was notable, with 100% affirming the use of digital technologies in their companies. This medium level of digitalization underscores the industry's readiness to embrace technological advancements.

Regarding AI, it was encouraging to find that 90% of respondents were aware of its relevance in the fashion sector. However, it's worth noting that while there is recognition, there is also a need for a deeper understanding of how AI can be harnessed to its full potential within the industry. The identified applications of AI chatbots, including research, market analysis, and design prompts, showcase the versatility of this technology.

Concrete results from AI implementation were reported by 36% of respondents, with improvements noted in communication, content creation, and design processes. Challenges and concerns, such as cost, legal issues, and data security, highlight areas for consideration in the integration of AI.

The overwhelmingly positive sentiment towards AI's future impact on the fashion industry (90% agreement) reflects an industry that is poised for transformation. However, it's important to acknowledge the need for careful scrutiny and verification of information derived from AI technologies to ensure accuracy and compliance.

One of the standout observations from the research was the industry's commitment to sustainability. Companies are actively implementing practices that reduce waste, use renewable energy, and prioritize the use of eco-friendly materials. The adoption of circular economy practices, as reported by 63.6% of respondents, demonstrates a concerted effort towards more sustainable and responsible production.

In conclusion, the Romanian fashion and textile industry is on the cusp of a transformative era, with digital technologies and AI poised to play pivotal roles. The industry's dedication to sustainability and its willingness to adapt to emerging technologies position it at the forefront of global fashion innovation.

ANNEX - Coding table

Indicator Number	Indicator	Indicator color	Associated text
1.	Company activity	Yellow	- Womenswear services company offering product design, development and manufacturing - Brand focused on producing low-impact sustainable clothing - Creative design studio - Social economy enterprise in home textiles - Brand specialized in the production of clothing - Brand of tailor-made clothing - Artisanal niche fashion brand - Fashion tech and design start-up company;
2.	Digital solutions currently used in companies (and how they are being used)	Green	- Soft for development 2 D and 3 D, all communication with the clients, all rapports - Digital patterns - Internet for research, news and sourcing - Photoshop, - Illustrator, - Lektra - Autocad, - Photoshop and Canva - Digital machines for production, - Web tools and databases - Illustrator. - PLM. - CLO, Blender, Udraper - Clo3D, Midjourney, Photoshop - Procreate
3.	Reason to use AI in a company	Blue	- Supply chain management - 36,4 % for marketing

			- 45.5% for design - 36% for forecasting - 27% for data analysis - 36% e-commerce assistance
4.	Benefits/Advantages of AI use	Red	- Fast creation of social media content and layout - More creative designs, - Very fast processing, - Helps with visualization of different possible techniques to finish garments - like finding the right type of closure and accessories for example - Helps with visualization of designs - Great potential in design, as it is very creative and can be used in many different ways. I have even created entire collections using Midjourney and ChatGPT
5.	Concrete results of AI use	Grey	- Clearer communication, less time needed to create social media content, and voice over to create professional visuals and videos - Much faster to write and better, it was much easier to find information - Clearer and better results on Midjourney designs using prompts written by ChatGPT
6.	Concerns/challenges about using AI	Pink	- Decrease in creativity, decrease in decision making - Worsening of the fast fashion phenomenon - Reduced creativity, uniformization - Anyone will be able to call himself a fashion designer - Will not be adapted to the specific needs of the companies - Legal issues regarding design.

			- Inaccuracy with reality - Very quick evolution of the technologies hard to follow in Romania - High cost - Skepticism by the general public, as we still need to work on educating the masses on what
7.	Overall opinion on AI use	Purple	- Increased productivity, higher quality, lower cost - Efficiency in the company, - Customer service - Data research & forecasting, more efficient production - Optimization of process, reducing need for human effort, reducing waste - Analysis of previous collections, sales, practices used for prototype creation, - Optimizing patternmaking - Decision making process is significantly simplified, - Help a business shift towards on-demand production and decrease the need for stocks and resource consumption. - Increase consumer educational and responsibility - Digital content creations
8.	Implementation of sustainability practices in the fashion industry process chain.	Orange	- Using renewable energy - High-quality natural fibres - Tailored made products, high quality and durable - Zero unsold items - Repair and adjustments services to our clients - Tailoring with minimal waste, using deadstock fabric, one-size production in order to avoid extra inventory, - Reusing material scraps or donating the unused scraps to the fashion university, - Controlled production

			- Sourcing in Europe from small suppliers that are ecologically certified - Recycle left over materials and use recyclable materials - Reduce waste at minimum - Optimize the use of colours, in order to reduce the waste coming from empty containers.