Potential Application of the Fashion Big Data Business Model in the textile and apparel supply chain: Functional Cloud Computational Interactive Design System

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Progress Report

Background

The use of *big data* is one of the emerging trends in the past years. *The Functional Cloud Computational Interactive Design System (Functional CC_IDS) is a kind of fashion big data business model technology platform, as a Garment Shopping Helper B2C site that can receive needs/requests from consumers according to their biometrics, activities, chosen garment, preferred hand feel, skin feel, comfort performance. After getting the details of the chosen garment and finishing comparing the difference between consumer preference and product performance, the integration of the data can give the comparison details and recommendations to consumers. In addition to the use of data in the B2C site, this can also provide data for the FBD Functional CC_IDS B2B site. With the data on the consumers' preferences and requirements, both textile manufacturers and apparel producers can have certain insight and direction on production methods and raw material purchases.

Introduction

The aim of the project is to explore the current state and future potential of using the functional CC_IDS model to influence the fashion textile/apparel supply chain. The present research explores, for the first time, the use of the functional CC_IDS inside the textile manufacturing industry, and that in the B2C and B2B perspectives in the apparel and textile supply chain. Meanwhile, the challenges faced by the system are presented and the suggestions for improving the system are discussed in this study.

- Where can this system be used in the future?
- Is there any challenge the system faces currently?

Methodology

Focus group interviews will be used as the primary method of obtaining information, and *online questionnaires* will be used as a supplementary survey.

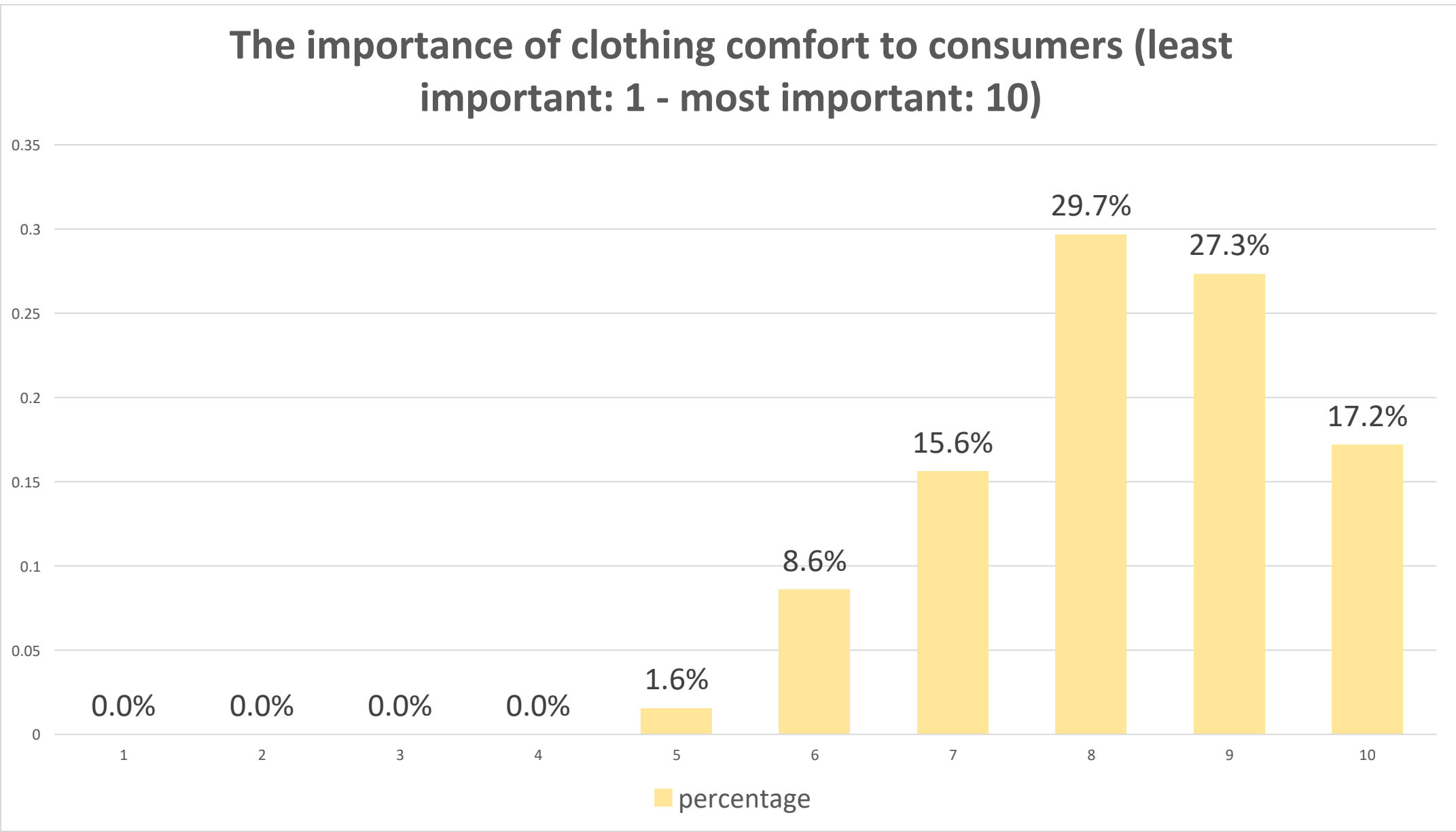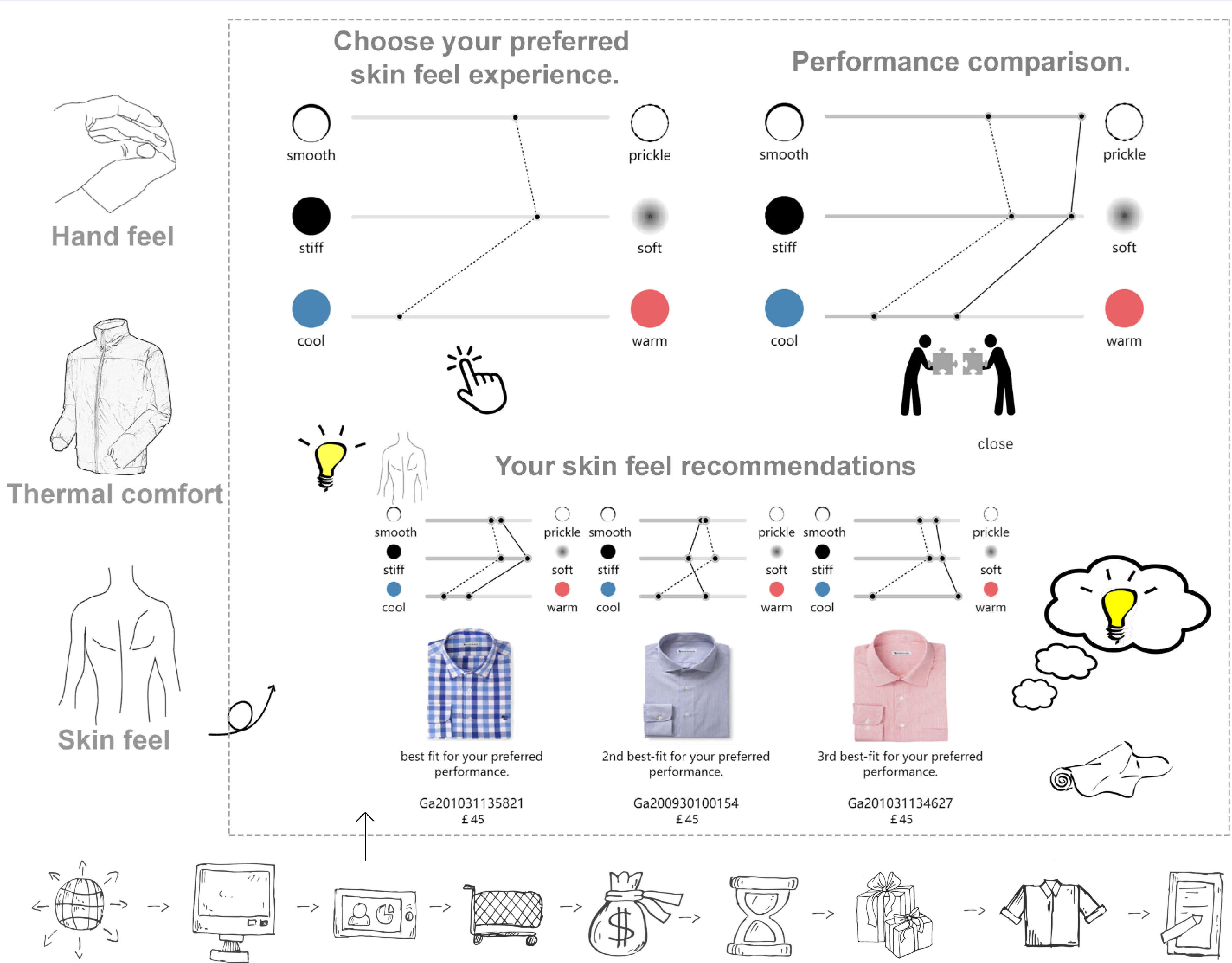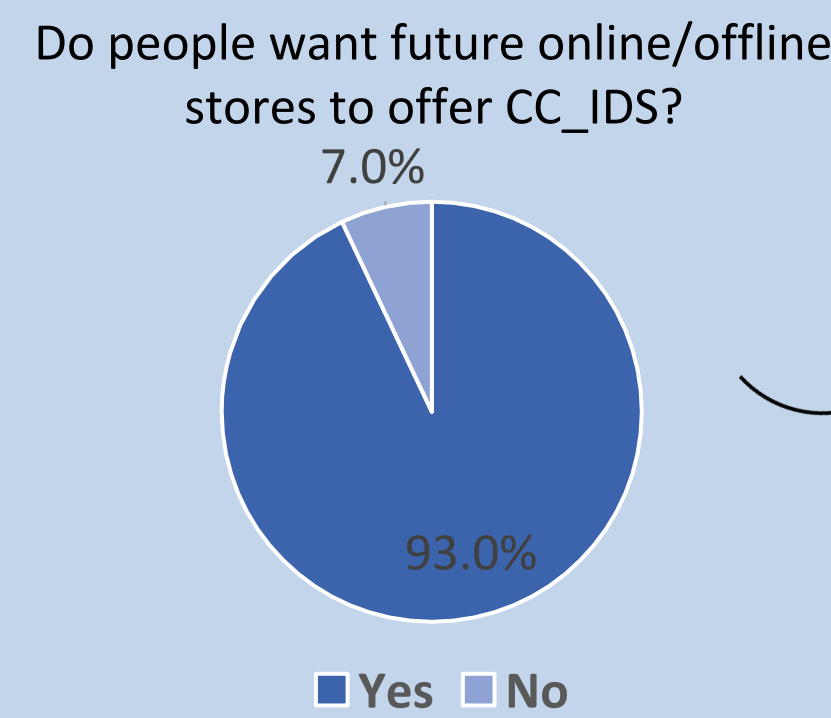| Group A	Group B
- 6 people	- 10 people
- Around 20 years old	- 35-55 years old
- University students	- core members of a textile manufacturer

Result

Based on information obtained from focus groups and online questionnaires, the functional CC_IDS model is relatively new software to the majority of people, and as a consumer, they are willing to use this system in the future. The system's potential for the future of the fashion and textile supply chain has also been discovered. Even though the shopping system has gradually improved, it still does not meet people's needs. When it comes to buying clothing, there is a growing demand for the provision of virtual try-on, 3D scans, 3D model distribution, body scanning and real size guide. In addition to this, the comfort of clothing is becoming more and more important to people.

Choose your preferred skin feel experience.
Performance comparison.
Hand feel — Thermal comfort — Skin feel

Your skin feel recommendations

best fit for your preferred performance. Ga201031135821 £45
2nd best-fit for your preferred performance. Ga200930100154 £45
3rd best-fit for your preferred performance. Ga201031134627 £45

The importance of clothing comfort to consumers (least important: 1 - most important: 10)

1	2	3	4	5	6	7	8	9	10
0.0%	0.0%	0.0%	0.0%	1.6%	8.6%	15.6%	29.7%	27.3%	17.2%

The attitude of consumers to the **hand feel** of garments: important 97.7%, not important 2.3%
The attitude of consumers to the **skin feel** of garments: important 96.1%, not important 3.9%
The attitude of consumers to the **thermal comfort** of garments: important 93.0%, not important 7.0%

Can consumers know the **hand feel** of the garments when you buy them online? Yes 81.3%, No 18.8%
Can consumers know the **skin comfort feel** of the garments when you buy them online? Yes 78.1%, No 21.9%
Can consumers know the **thermal comfort** of the garments when you buy them online? Yes 85.2%, No 14.8%

	B2B perspective	B2C perspective	In the textile manufacturing industry
	- E-commerce of textiles - Trend forecast - Digitalize the entire supply chain	- Shopping malls & stores - Haute couture and customization - Cooperation with several shopping apps to provide a better shopping experience	- Determine product requirements - Raw material choosing - Help develop textiles - Yarn parameter setting - Connect various software and programs together

|	
Challenges	- No specific standard - Big data is difficult to be collected - Feel cumbersome (thermal comfort)
Suggestions	- Set up standards and provide instructions - Collecting different types of data - Simplify the procedure - Combined with different functions

Conclusion

This study set out that the successful use of functional CC_IDS can play a role in helping to break through the bottleneck of the fashion industry including both the textile and apparel supply chain in B2B, B2C and industry manufacturing perspectives. However, the overall textile supply chain currently lacks digitalization, and there is no authoritative third-party organization that can provide the standard within this system (hand feel, skin feel, thermal comfort) at this moment. Therefore, at present, the big data related to the system is difficult to be collected, and the widespread use of this system in the textile supply chain is not possible. Overall, the findings of this paper highlight the role of the functional CC_IDS model in the fashion industry and the importance of big data to determine if the system can be widely used in different aspects in the future.

Do people want future online/offline stores to offer CC_IDS? Yes 93.0%, No 7.0%

93% of people want future online and offline stores to offer this system.
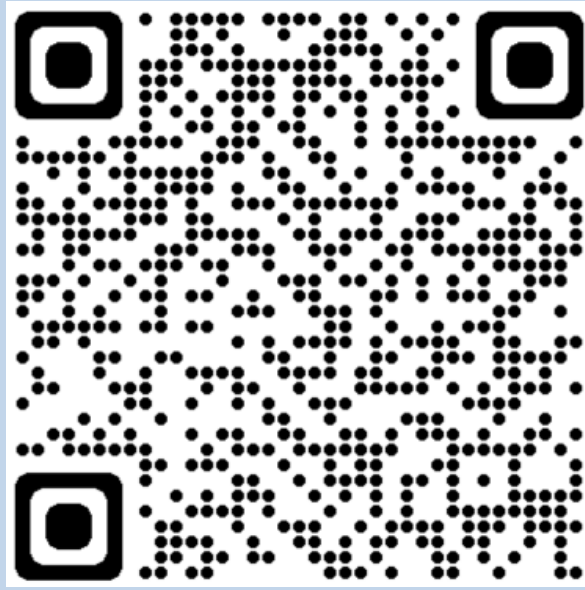
WANT TO KNOW MORE? SCAN and TRY

Sources
https://www.fbd-bmodel.eu/
https://digital-clothing.co.uk/
https://digital-clothing.co.uk/product/shirt-1/
https://www.fbd-bmodel.eu/wp-content/uploads/2021/04/3_FBD_BModel_FinalWorkshop_Presentation-Henry-Yi-Li_.pdf

Digital Platform
Data-Driven
Tailored by consumers

FBD_BMODEL