BIG DATA IN FASHION INDUSTRY

INNOVATIVE ASSIGNMENT
2CS702 - BIG DATA ANALYTICS

WHY BIG DATA IN FASHION?

Group Behaviour

Positive Evaluation

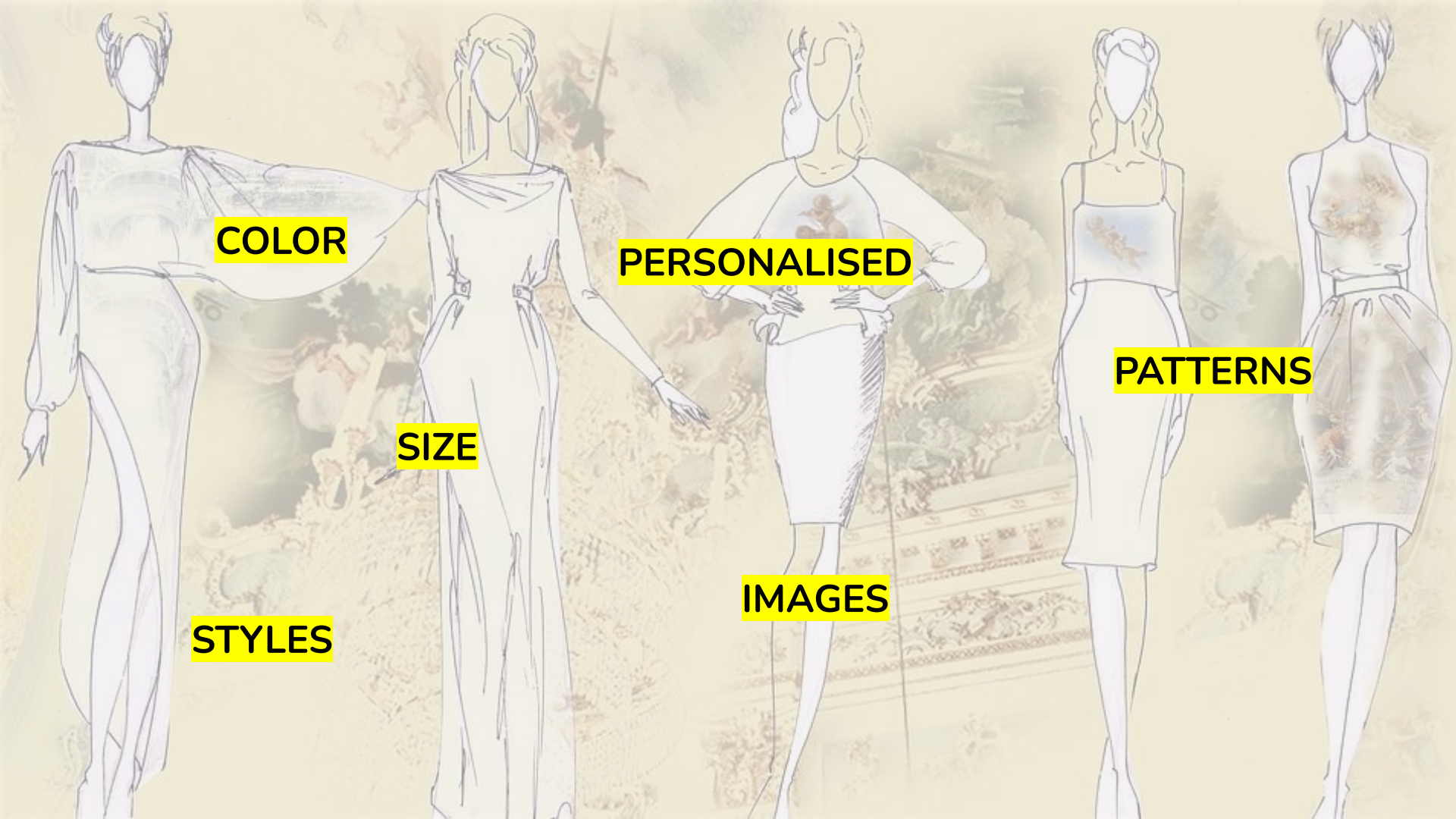
Trust

Participation

Scope of this Assignment

- In this assignment, an attempt is made to introduce the term fashion data and why it can be considered as big data.
- It also gives the classification of the types of fashion data by defining them briefly.
- Also, the methodology and working of a system that will use this data is briefly described in this paper.

INTRODUCTION


COLOR
SIZE
STYLES
PERSONALISED
IMAGES
PATTERNS

As a result...

- The fashion companies lose a lot of money due to excessive stock
- Becomes obsolete because of changing trends.
- Customer is unaware of her/his needs and mostly lacks professional design knowledge.
- Most mass customized products are not as desired.
- The customer is rendered dissatisfied.

Fashion Design based on Big Data

Intelligent Analysis of the data to select diverse fashion-attribute data to identify colour, fabric, style, brand, size, and other preferences among consumers based on age, gender, region, and other factors.

Big Data and Fashion

- Fashion designers must apply data-mining results for a specific fashion to a specific type of design and judge whether it meets consumer needs based on the data when using big data.
- This can help to overcome traditional design's overemphasis on fashion designers' subjective aesthetics.
- Designers can, analyse the characteristics, patterns, styles, fabrics, and production processes of currently popular men's T-shirts when designing men's T-shirts.
- In this way, they can use big data platforms to identify the factors that customers care about the most when purchasing men's T-shirts, and then use those factors as design inspiration.

LET’S TALK ABOUT SOME INNOVATIVE FRAMEWORKS AND MODELS

PRODUCT INNOVATION FRAMEWORK

PROPOSED BY Quan et al.24

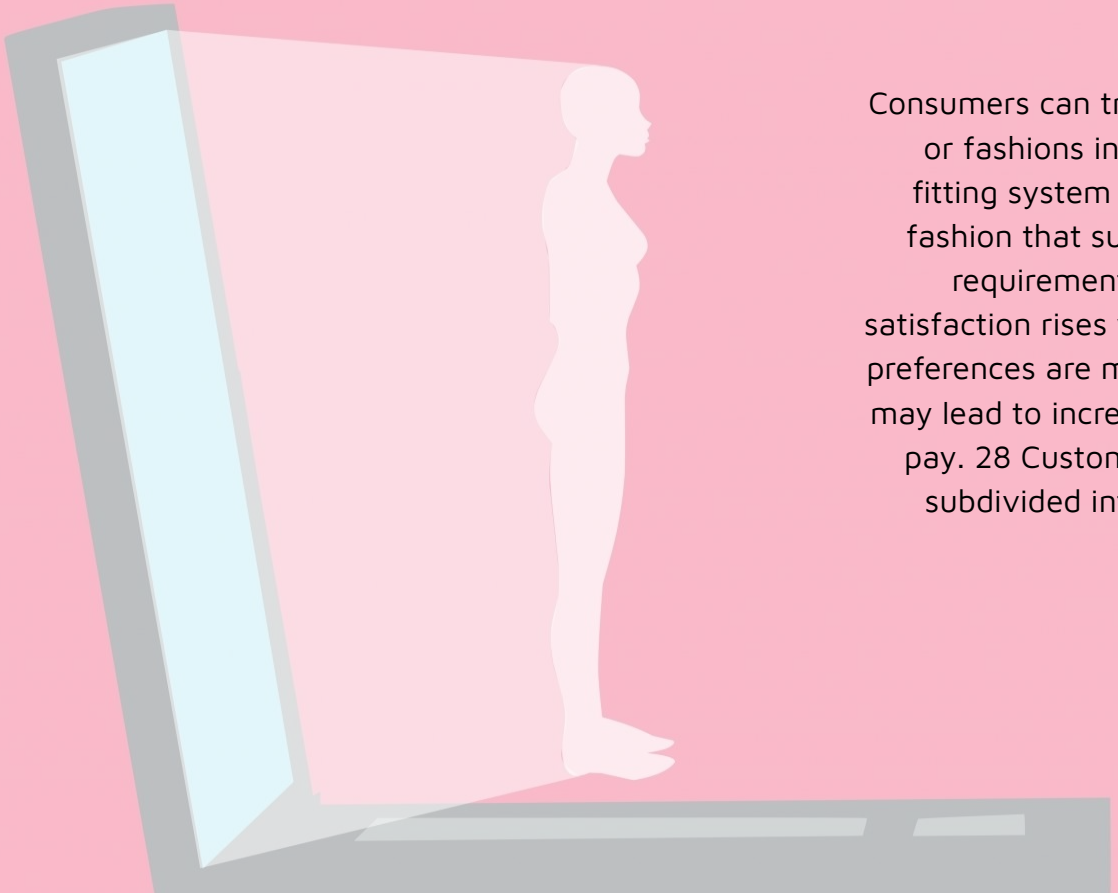
Product designs based on neural style transfer: (a) It is content image, (b) Image of different styles, and (c) Resultant image.

LIMITATIONS

- Despite the fact that this framework can automatically acquire new products without the need for manual intervention, the evaluation of style image is based on questionnaires rather than objective models, which introduces subjectivity into their framework.

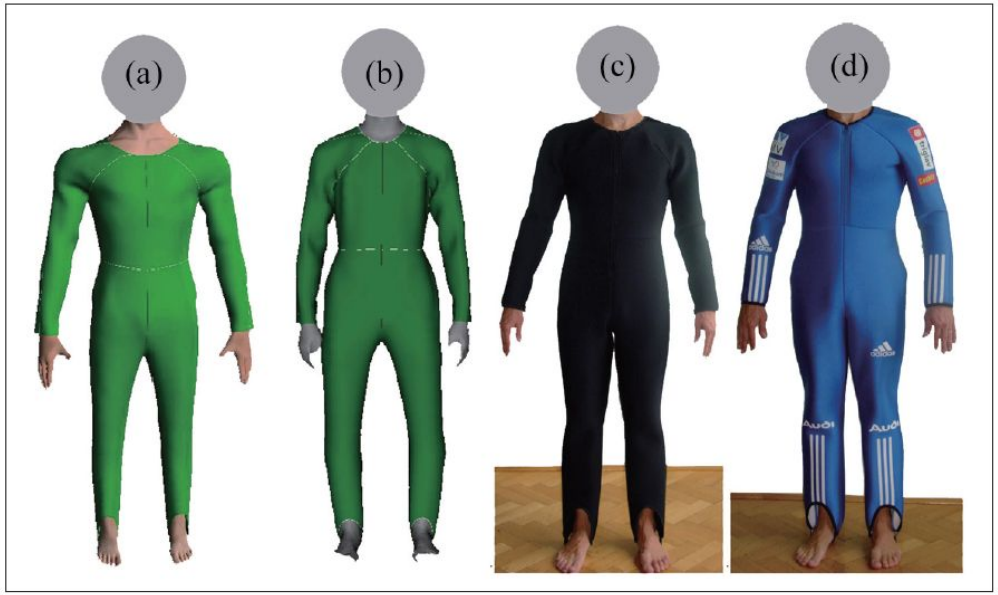
- Furthermore, when using the framework to design fashion, the fashion style cannot be changed, and some design elements from previous fashions cannot be combined to create a new pattern, which is a major flaw in the framework.

VIRTUAL CUSTOMER FITTING

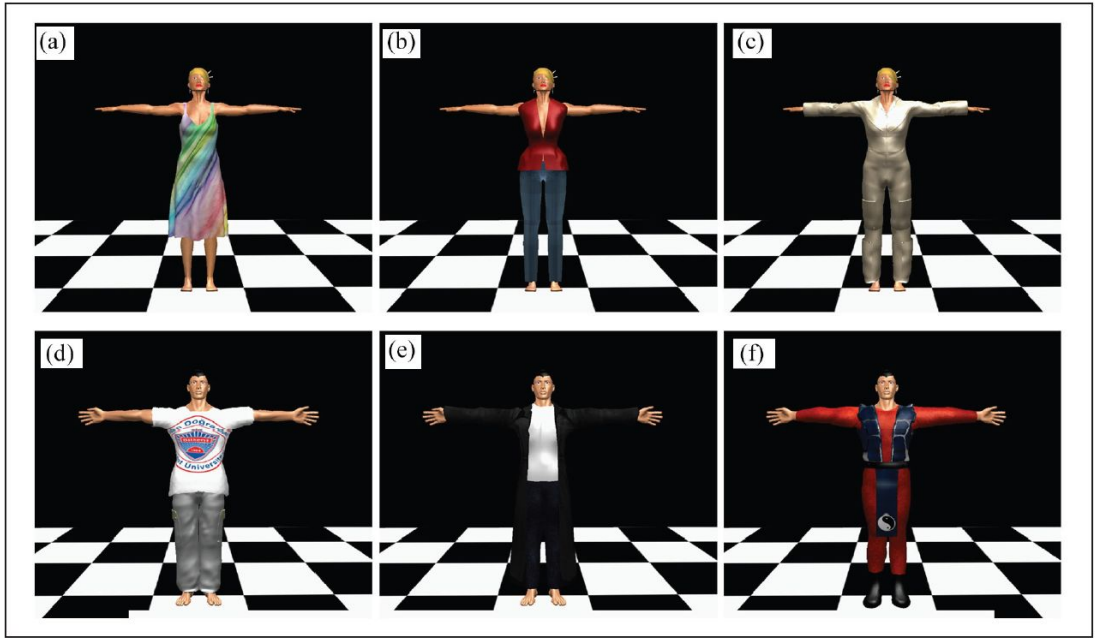


Consumers can try on various styles or fashions in a virtual customer fitting system to better identify a fashion that suits their tastes and requirements. 26,27 Customer satisfaction rises when products and preferences are more aligned, which may lead to increased willingness to pay. 28 Customer manneq can be subdivided into virtual customer fitting.

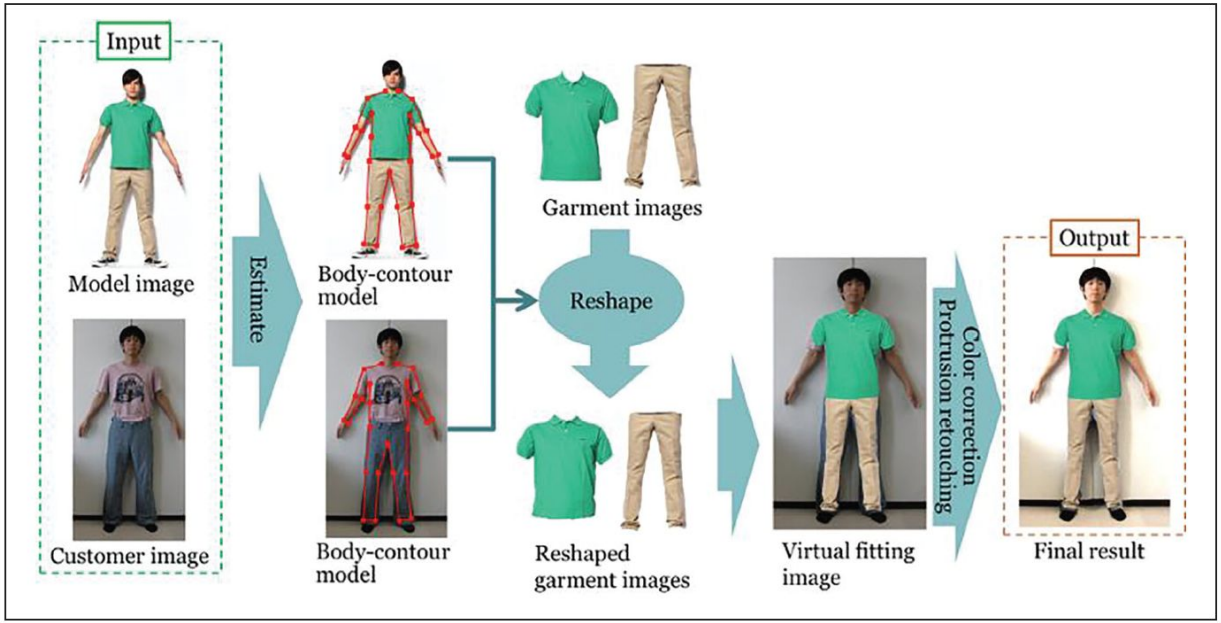
Customer mannequin virtual fitting



Customer mannequin virtual fitting



Real-human-body virtual fitting

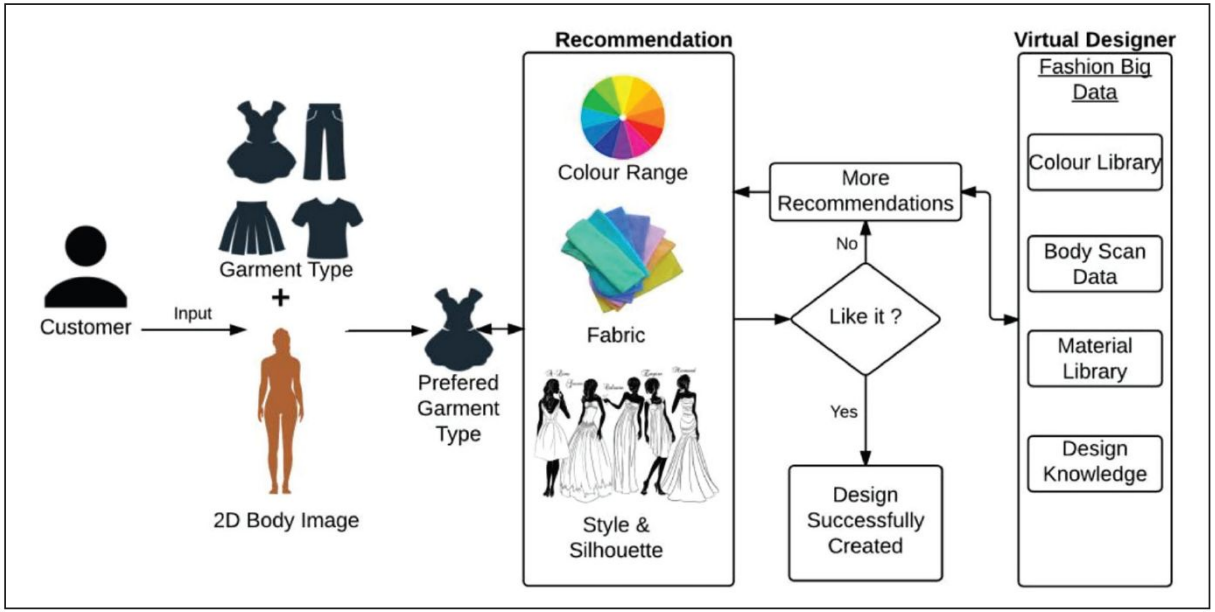


Benefits

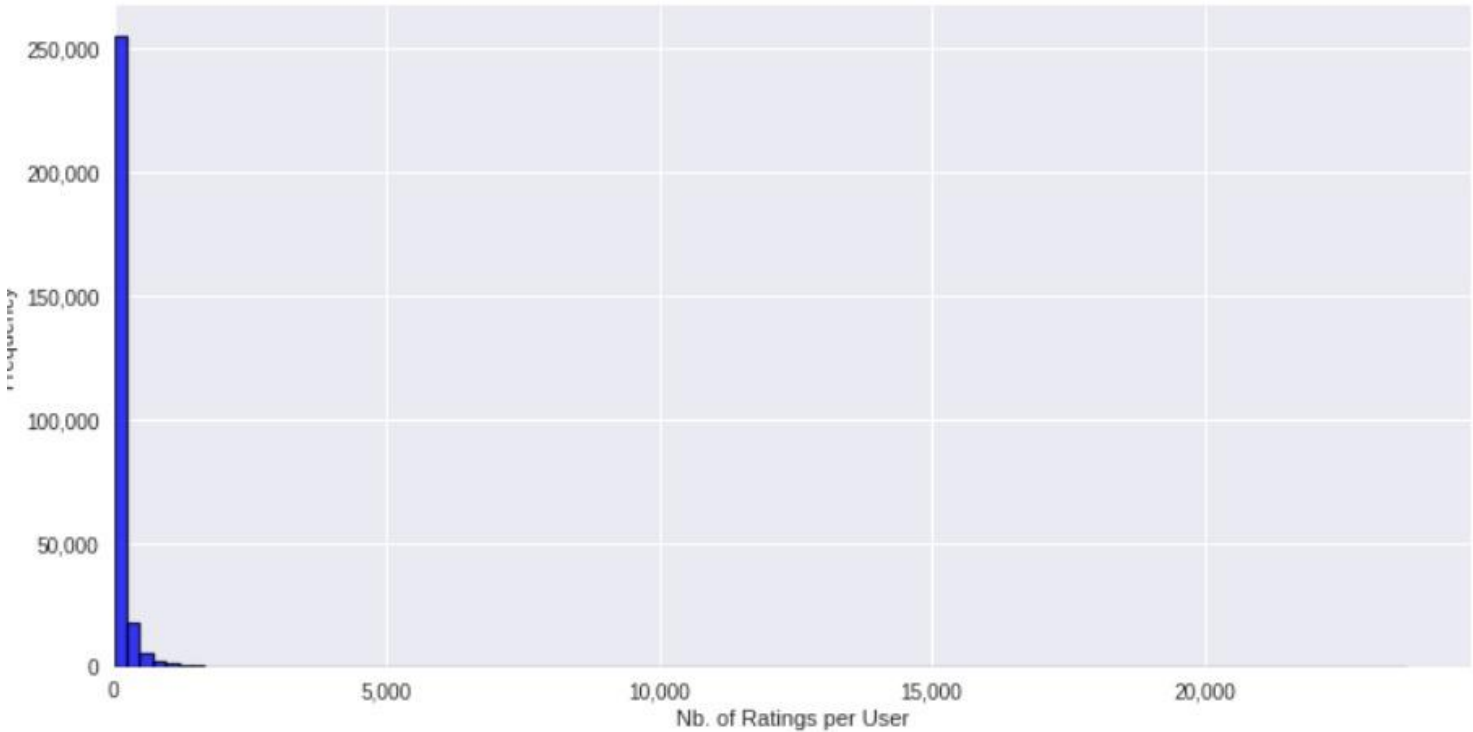
- The garment image is automatically reshaped based on the customer's body shape
- Brightness differences between the customer image and the garment image are automatically adjusted based on facial colour
- Protrusions in the customer's cloth behind the garment are automatically retouched.

FASHION RECOMMENDATION SYSTEM

Fashion recommendation system



Results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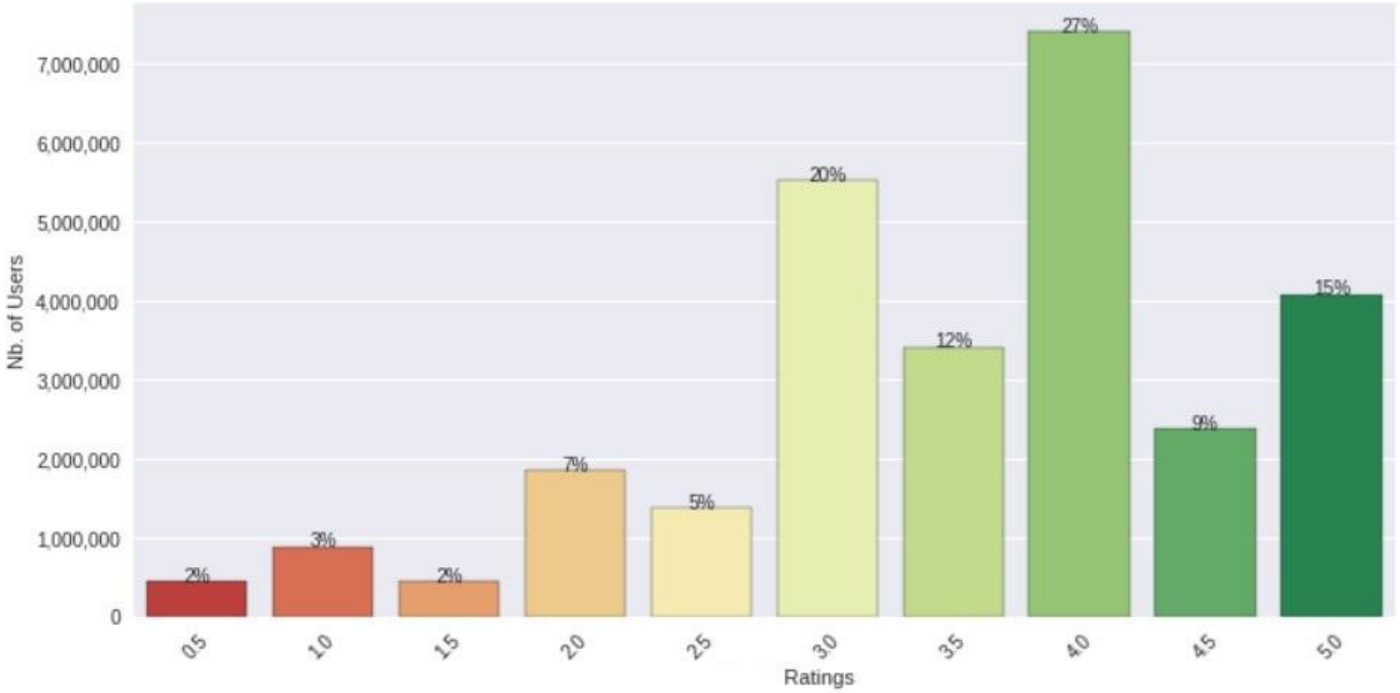
Nb. of Ratings per User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Ratings

Conclusion

Market-driven fashion design models based on big data are currently the most popular. These gather consumer fashion needs, match tastes using a variety of methods (e.g., shopping websites, shopping apps, or market surveys), forecast fashion trends, and then design fashion using professional knowledge