# H&M Group

# Data Analytics Proposal

**GROUP – H   
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## Organization Information

***Overview***  
H&M Group is a big fashion retailer that owns different brands like H&M, COS, Monki, Weekday, and & Other Stories. They sell clothes, shoes, accessories, and even home products. H&M has stores in many countries and also sells online in more than 50 markets. Their goal is to give customers fashion and quality at a good price, and they are also working towards being more sustainable by reusing materials and reducing waste.  
  
***Employees***  
It’s a large company with over 100,000 employees around the world.  
  
***Industry***  
They are part of the fashion and apparel retail industry.  
  
***Type***  
H&M is a public company and is listed on Nasdaq Stockholm.  
  
***Specialties***  
a. Clothing for men, women, and children  
b. Shoes and accessories  
c. Home décor items  
d. Online shopping and in-store sales  
e. Sustainability programs

## Use Case / Scenario to Understand Value

H&M sells a huge variety of products. While this is good, it can make it hard for customers to quickly find what they want. Too many choices can lead to confusion, and sometimes people might leave without buying anything.  
  
By looking at the sales data, we can figure out which products sell the most and which categories are most popular for different types of customers. This will help H&M make better recommendations, improve the shopping experience, and possibly reduce product returns.

## Problem Statement and Background

***Problem Statement***

Customers sometimes get overwhelmed by the number of products available online and in stores. H&M needs to identify its most popular products and trends so that they can highlight them to customers and improve sales.  
 ***Questions to Guide the Analysis***

1. What are the top-selling products overall?  
2. Which categories earn the most revenue?  
3. How do sales compare between online and store channels?

4. Are there any seasonal or monthly sales patterns?  
5. Which products are most popular among different age groups?

## Data Sources

**We used three datasets given for this project:**  
1. **articles.csv** – Information about each product, like product type, category, and color.  
2. **customers.csv** – Information about customers, including their age and membership status.  
3. **transactions\_train.csv** – Details of each purchase, including the date, price, customer, and whether it was bought online or in-store.  
  
These files were linked together in Power BI using the product ID (article\_id) and customer ID (customer\_id).

## Preliminary Analysis

The data was cleaned in Power BI to remove empty values and fix formats. After that, different visuals were made to see trends.

1. **Top 10 Selling Products**

A graph of sales

AI-generated content may be incorrect.

Trousers and sweaters are the best-selling items, followed by jackets and dresses.

1. **Sales by Product Category**

A graph showing the sales of clothing

AI-generated content may be incorrect.

Garment Upper Body and Garment Lower Body dominate sales.

1. **Sales by Channel (Online vs Store)**

A pie chart with a red circle

AI-generated content may be incorrect.

Around 70% of purchases happen in stores.

1. **Sales peak towards the end of September.**

A graph showing the sales trend

AI-generated content may be incorrect.

Sales peak towards the end of September.

1. **Product Category Sales by Age Group**

A screenshot of a chart

AI-generated content may be incorrect.

Garment Upper Body is popular across all age groups.

1. **Customer Age Distribution**

A graph of a customer age distribution

AI-generated content may be incorrect.

Most customers are between 18–35 years old.

## Summary and Recommendations

***Summary:***  
1. Trousers and sweaters are the top-selling products.  
2. Garment Upper Body is the leading category.  
3. Most sales come from stores, but online shopping is still important.  
4. Customers aged 18–35 make the most purchases.  
5. There is a clear sales peak in late September.  
  
***Recommendations:***  
1. Highlight top products like trousers and sweaters in marketing campaigns.  
2. Create more targeted promotions for the 18–35 age group.  
3. Take advantage of September sales peaks by launching new collections or discounts before that month.  
4. Offer more online-exclusive deals to attract digital shoppers.  
5. Review low-selling categories to decide if they need improvement or removal.

## References

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