



## ABOUT ME

#### **EDUCATION**

Mar 2025 - Data Science & Data Analytics Bootcamp

**Now** dibimbing.id

2020 - Bachelor of Management

**2024** Telkom University



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## OUTLINE

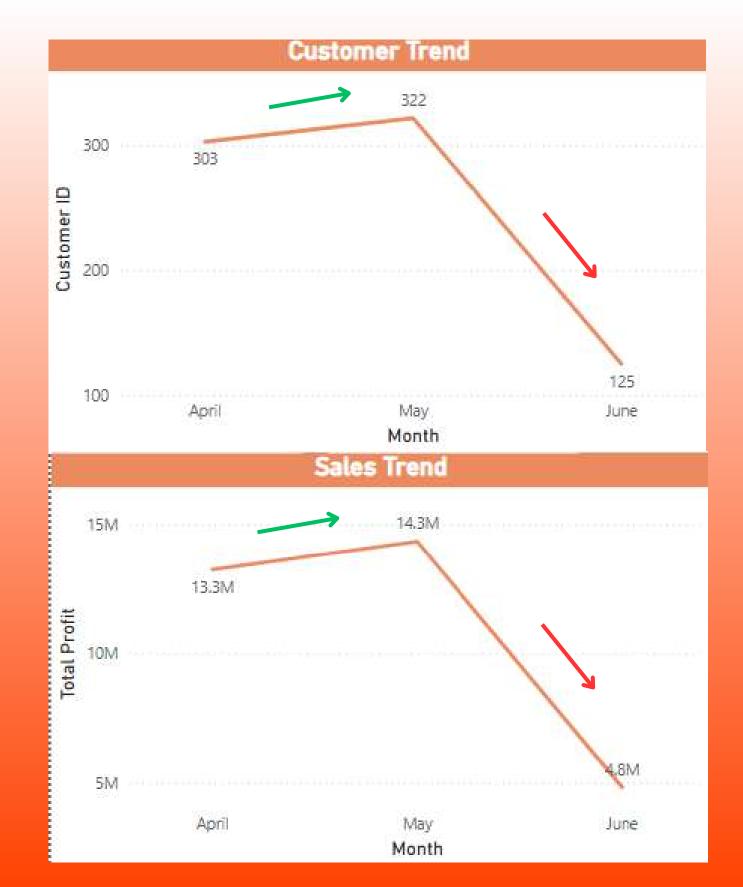
•	Project Background & Business Goals	1
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- Data Understanding
- Data Preprocessing
- Findings & Results
- Recomendation

### PROJECT BACKGROUND

The European fashion industry in the E-Commerce sector is highly competitive, with consumer preferences and market dynamics continuing to evolve rapidly. To maintain a strong market position and drive sustainable growth, our business aims to optimize marketing and customer engagement strategies through data-driven insights. This project focused on a deep understanding of customer behavior and operational efficiency as the main keys to success.

Analysis of transaction data from the period April to June 2025 highlighted key challenges that needed to be addressed immediately. The data showed significant fluctuations in the number of customers and total monthly sales. The peak performance occurred in May 2025, where the company recorded the highest number of customers and total sales. However, this performance was followed by a drastic drop in June 2025, which was the lowest point for both metrics in the quarter, signaling an issue that needs further investigation.





## BUSINESS GOALS

- What are the sales trends and customer numbers over time, and what are the customer retention patterns?
- What are the total number of customers, transactions, and sales, as well as the average values for Recency, Frequency, and Monetary?
- Which customer segment contributes the most in terms of profit and frequency?
- Which product category is the most sold, and which channel generates the highest profit?
- Which country performs best in terms of profit and frequency?





## DATASET & TOOLS



**DATASET FASHION STORE SALES ITEMS** 



**DATASET FASHION STORE PRODUCTS** 



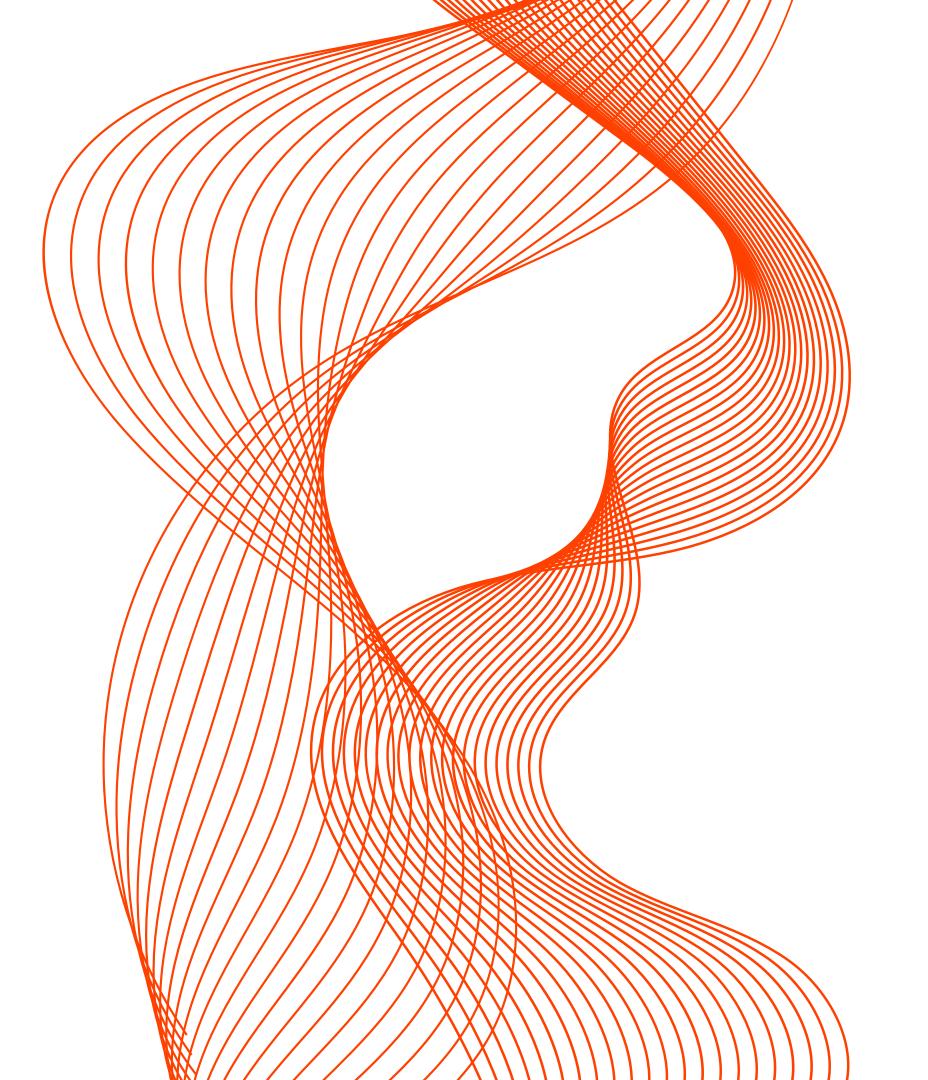
**DATASET FASHION STORE SALES** 



**GOOGLE COLAB** 



**POWER BI** 



## DATA UNDERSTANDING







- Downloaded from Kaggle:: **Ecommerce European Fashion**
- Sales: 905 rows, 7 columns
   Sale ID, Channel, Discounted, Total Amount, Sale Date,
   Customer ID, Country
- This data only contains from April 4 June 17, 2025

- Products: 500 rows, 9 columns
   Product ID, Product Name, Brand, Color, Size,
   Catalog Price, Cost Price, Gender
- Sales Items: 2253 rows, 13 columns Item ID, Sale ID, Product ID, Quantity, Original Price, Unit Price, Discount Applied, Discount Percent, Item Total, Sale Date, Channel, Channel Campaigns
- This data only contains from April 4 June 17, 2025







## DATA PREPROCESSING



Handling Missing Value



Handling Duplicates



Converting Data Types

1

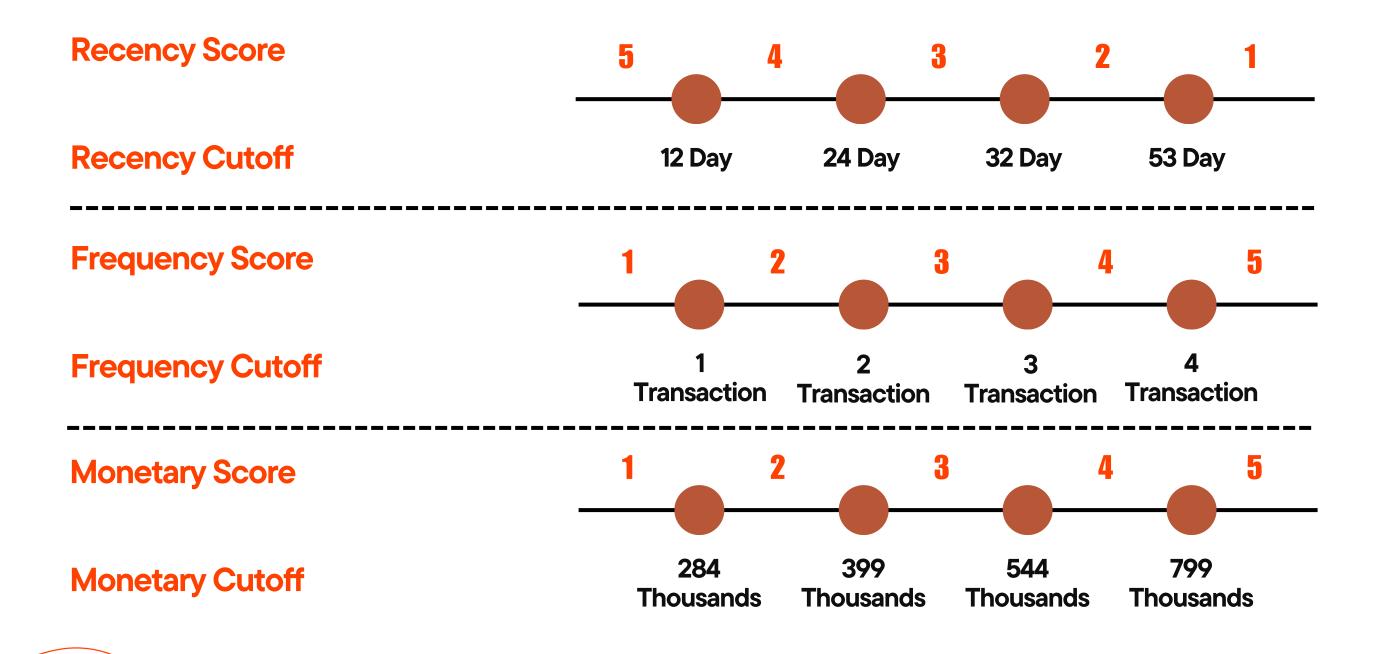
There are no missing values or empty values in the data

2

There is no duplicate data so the data can be used for research

Change the Sale Date format from Object to Date Time

## FINDINGS & RESULTS



## FINDINGS & RESULTS

Total number of customers, transactions, and sales, as well as the average Recency, Frequency and Monetary values

Total Customer Total Transaction Total Profit Average of Recency Average of Frequency Average of Monetary

580 905 32M 48.5 1.6 55.9K

Transaction Date
4/4/2025 6 6/17/2025 6

Number of Customer by Segmentation

65 (11.21%)

98 (16.9%)

Customer Segment

At Risk

Champions

Potential

Uncategorized

Loyal

- Ecommerce European Fashion has a customer base of 580 customers, with 905 transactions and total revenue of 32 Million Euros.
- The average customer made 1-2 transactions, indicating good engagement.
- The average customer spent 55.9K euros indicating a high value customer segment.
- Average Recency is 48.5 days.
- Transaction Date starts from April 4 June 17, 2025

#### Insight:

- At Risk (196 Total Customers)
- Champions (118 Total Customers)
- Potential (103 Total Customer)
- Uncategorized (98 Total Customers)
- Loyal (65 Total Customers)

## FINDINGS & RESULTS

#### Insight:

- Customer visits peaked on days 14 to 16, with the highest number reaching 58 customers.
- After day 16, there was a gradual decline in the number of customers.
- The early days (1-5) showed a low number of customers (around 41-43).
- Days 30 and 31 showed the lowest number of 24 customers, almost half of the peak.

#### Patterns and Trends:

- There was an upward trend from day 1 to day 16.
- After day 16, the trend consistently decreases.
- It is worth looking at whether this decline is related to seasonal factors, ending promotions, or declining marketing activities.
- on day 31 needs attention, it could be due to economic factors (end of the month), or the absence of attractive offers.



### FINDINGS & RESULTS



01

#### **Customer Segmentation by Profit**

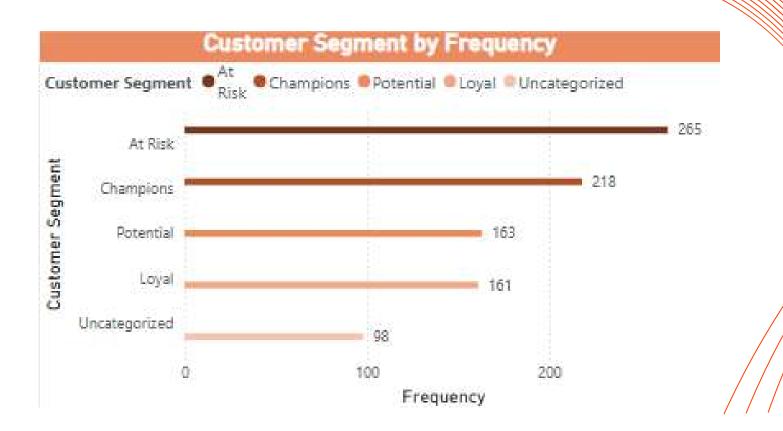
#### il Insight:

Top Segments

- At-Risk Customer (Total profit of 9.4 Million)
- Champion Customer (Total profit of 8.1 Million)
- Loyal Customer (Total profit of 5.8 Million)

#### **Bottom Segment**

- Potential Customer (Total profit of 5.7 Million)
- Uncategorized Customer (Total profit of 3.4 Million)



02

#### **Customer Segmentation by Frequency**

#### **ii** Insight:

**Top Segments** 

- At-Risk Customer (Total transaction frequency 265)
- Champion Customer (Total transaction frequency 218)
- Potential Customer (Total transaction frequency 163)

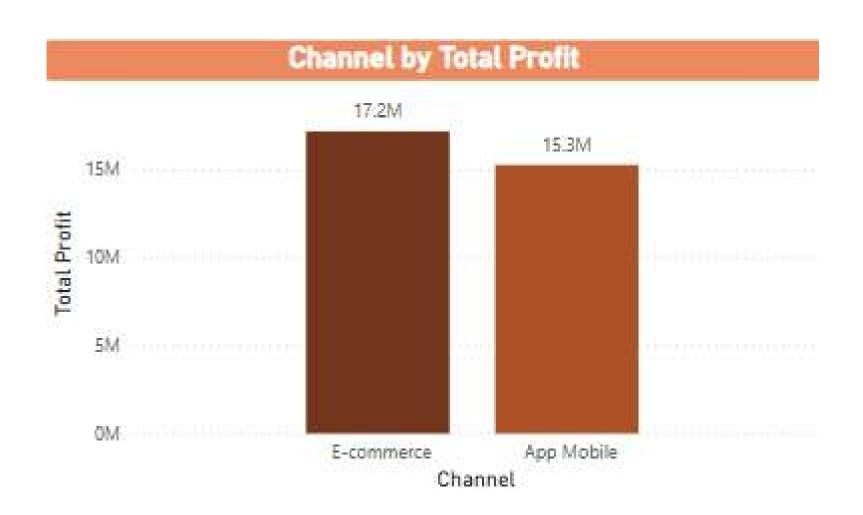
#### **Bottom Segment**

- Loyal Customer (Total transaction frequency of 161)
- Uncategorized Customer (Total transaction frequency of 98)





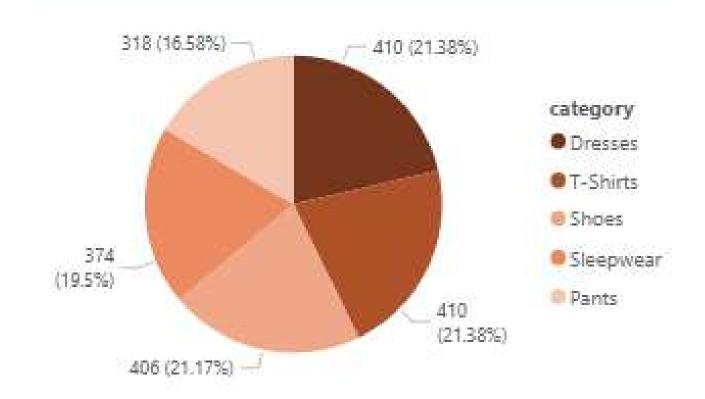
## FINDINGS & RESULTS





- E Commerce channel has the highest sales profit of 17.2 million
- Mobile App channel takes second place with sales profit of 15.3 million

#### Number of Product by Sales



#### **III** Insights:

Top Product

- Dresses (Total sold 410)
- T-Shirts (Total sold 410)
- Shoes (Total sold 406)

**Bottom Product** 

- Sleepwear (Total sold 374)
- Pants (Total sold 318)

### FINDINGS & RESULTS

#### **III** Insight:

#### **Top Country**

- Germany (Total profit of 7.5 Million)
- France (Total profit of 7.2 Million)
- Italy (Total profit of 5.9 Million)

#### **Bottom Country**

- Netherlands (Total profit of 4.7 Million)
- Spain (Total profit of 4.1 Million)
- Portugal (Total profit of 3.0 Million)

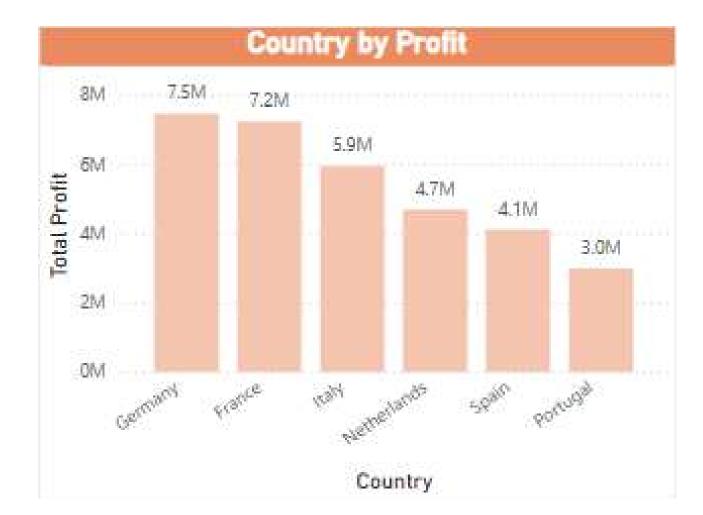
#### **Insight:**

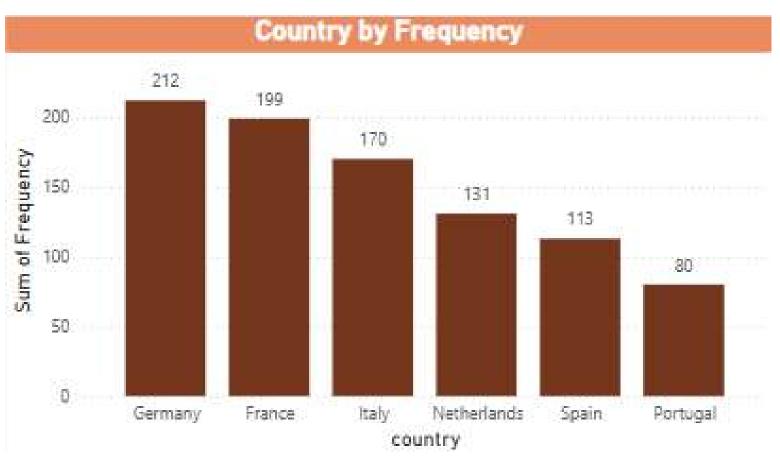
#### **Top Country**

- Germany (Total transaction frequency 212)
- France (Total transaction frequency 199)
- Italy (Total transaction frequency 170)

#### **Bottom Country**

- Netherlands (Total transaction frequency 131)
- Spain (Total transaction frequency 113)
- Portugal (Total transaction frequency 80)





#### 1. Retain "At-Risk" Customers

#### **Insight:**

- 196 customers are categorized as At-Risk.
- They contribute the highest total profit (€9.4M) and transaction count (265 times) but have become inactive recently.

#### **Strategic Recommendations:**

- **Segmented Retargeting:** 
  - Create a customer list for At-Risk and retarget them via Google Ads / Meta Ads.
- Reactivation Email Campaign:
- Send a "We Miss You" email with exclusive incentives (e.g., 20% off their next purchase).
- **Loyalty Vouchers:** 
  - Provide personalized vouchers or codes to encourage repeat purchases.

#### 2. Retain "Champions" and "Loyal" Customers

#### **Insight:**

- Champions (118 customers) contributed €8.1M, and Loyal (65 customers) contributed €5.8M.
- These customers are highly engaged and high-value.

#### **Strategic Recommendations:**

- **Exclusive Loyalty Program:**
- Offer early access to new collections, pre-order invitations, or member-only discount events.
- Personalized Product Recommendations:
- Use purchase history to send curated product suggestions.
- **Referral Program:**
- Reward customers for inviting friends—e.g., €10 discount for both referrer and invitee.

## RECOMENDATIONS

#### 3. M Improve End-of-Month Performance (Day 30–31) Insight:

- Day 30–31 had the lowest traffic (24 customers).
- Peak visits occurred on Days 14–16.

#### **Strategic Recommendations:**

- \* End-of-Month Flash Sales:
- Launch campaigns like "Payday Sale" or "End of Month Deals" with time-limited offers.
- **A/B Test Promotions:**
- Experiment with different promotional strategies (flat discount vs. bundle vs. cashback).
- Push Notifications for Mobile Users:
- Send reminders or promo alerts during Days 28–31 to re-engage users.

#### 4. Maximize "Potential" Customer Segment Insight:

- 103 customers fall into the Potential segment, contributing €5.7M from 163 transactions.
- They are newly acquired but already show high value.

#### **Strategic Recommendations:**

- Automated Welcome Journey:
- Setup email series:
  - Welcome message
  - Product recommendations
  - Second purchase discount
- First-Time Buyer Packages:
- Offer discounted bundles of bestsellers for first-time customers.
- Complementary Product Upsell:
  - E.g., suggest matching shoes or bags when a dress is purchased.

## RECOMENDATIONS

#### 5. Pouble Down on Top Products & Channels Insight:

- Bestsellers: Dresses, T-Shirts, Shoes
- Best-performing channels: E-commerce (€17.2M) > Mobile App (€15.3M)

#### **Strategic Recommendations:**

- Product-Focused Campaigns:
  - Promote themes like "Best Sellers Back in Stock".
- Channel-Specific Promotions:
- Offer targeted discounts:
  - "Web-Only Weekend Deals" for desktop users
  - "App Exclusive Code" for mobile app users
- **Optimize Product Visuals:**
- Use high-quality product images and verified reviews to boost trust and conversion.

#### 6. Boost Low-Performing Countries

#### **Insight:**

- Lowest profit countries: Portugal (€3M), Spain (€4.1M), Netherlands (€4.7M)
- Highest: Germany (€7.5M), France (€7.2M)

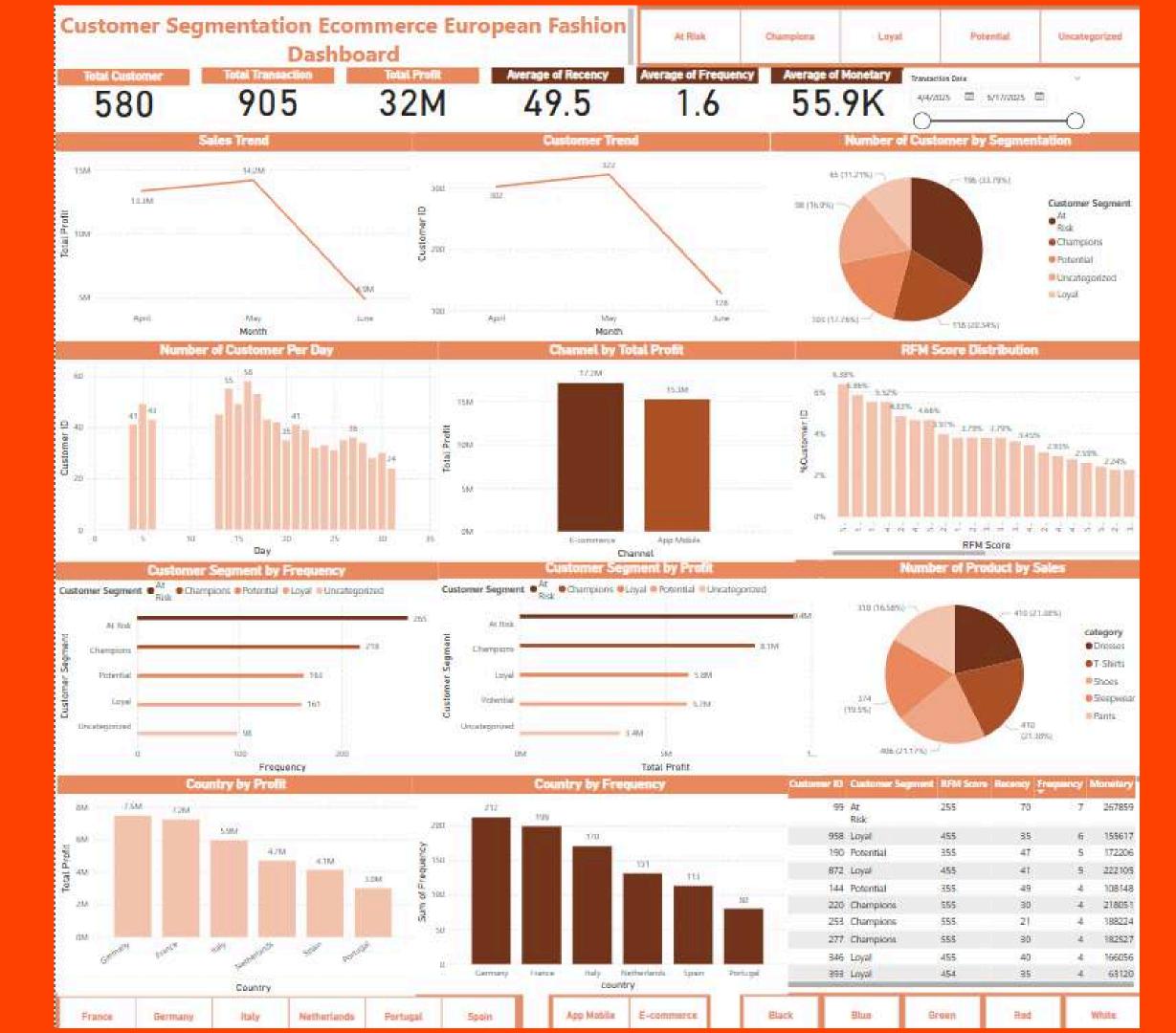
#### **Strategic Recommendations:**

- Localized Content & Campaigns:
- Use local language and culturally relevant messaging to connect better with Spanish and Portuguese markets.
- Region-Specific Free Shipping:
- Offer free shipping for underperforming countries for a limited time.
- **Investigate Local Friction Points:**
- Check payment options, delivery time, pricing competitiveness, or website UX in these countries.

## RECOMENDATIONS

# CUSTOMER SEGMENTATION DASHBOARD

- To provide insight into customer segmentation based on the RFM (Recency, Frequency, Monetary) model.
- To provide a comprehensive analysis of sales performance and customer retention.









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