## **Conclusions & Recommendations:**

#### 1. High-Profit and High-Order Customers:

- Customers like Tamara Chand (highest profit) should be treated as VIPs. Offering exclusive loyalty programs, personalized perks, or birthday bonuses can strengthen retention and increase future purchases.
- Customers like Patrick O'Brill (most orders placed) should be targeted with a "frequent buyer" program offering recurring-customer discounts.
- Similar strategies should be extended not only to these individuals but also to other customers with high order volume or profit contribution.

#### 2. Consumer Segment:

- Private consumers, particularly within Technology, are the most profitable segment. Marketing efforts should be tailored towards individual customers through digital campaigns and promotions in everyday channels where they are most likely to engage (e.g., social media, retail partnerships, lifestyle events).

### 3. Product & Category Strategy:

- Technology and Furniture should remain focus areas due to their strong revenue contribution.
- Copiers and Phones are popular subcategories. Consider offering significant discounts on less popular or lower-performing products when purchased alongside top sellers. This cross-selling approach could help increase sales of slower-moving inventory.
- Canon imageCLASS 2200 Advanced Copier (top revenue product) should be secured with strong inventory management and stable pricing strategies.
- The Cubify CubeX 3D Printer (lowest profit) should be reassessed for profitability either by adjusting pricing, reducing costs, or potentially removing it from the catalog if it remains unviable.

### 4. Seasonal and Geographic Insights:

- November is the strongest month for sales, likely due to the holiday season and Black Friday. Marketing campaigns should begin as early as September–October to capture customer attention before competitors.
- September shows the highest profitability. This suggests that fewer discounts or higher-margin products were sold during this month, a strategy that could be replicated in other periods.
- The United States remains the strongest market, followed by Turkey. These regions should continue to receive focused investment and localized campaigns.
- APAC and EU also contribute significantly to sales, making them priority markets for growth.
- Africa and Canada remain weak; expansion into these regions should only be considered with tailored entry strategies.

# 5. Shipping & Operations:

- Standard Class shipping is the backbone of both revenue and profit. Maintaining reliability and competitive pricing for this mode is essential.
- Same-Day shipping has low demand but can be positioned as a premium service for VIP customers or urgent purchases, ensuring it remains a profitable niche offering.

#### 6. Machine Learning Insights:

- K-Means clustering revealed high-value vs. low-engagement customer groups. Personalized strategies should be implemented: exclusive bundles and premium services for high-value customers, and re-engagement offers or coupons for low-engagement customers.
- DBSCAN identified outliers with unusually high profits or order volumes. These VIP accounts should receive dedicated account management, personalized services, and potentially premium loyalty programs.