**Insights**

**1. Sales & Profit Trends**

* **Revenue and profit increased steadily** from 2016 to 2019, with peak performance seen in 2020 and 2021. This could be due to Covid19.
* Sales and profit **seasonality is evident**, suggesting promotional periods or holiday effects. E.g. High sales and profit in November due to holidays.
* **United States leads in total sales** followed by the **United Kingdom** and **Germany**.
* Online sales are recorded as a **separate "country"**, and they perform comparably to some physical countries.

**2. Store Performance**

* A small number of stores generate **disproportionately high revenue**, suggesting either location advantage or store size.
* There is a **clear correlation** between **store age and average sales**, with stores (2-5 years) slightly outperforming older ones.

**3. Product Performance**

* **The top 10 products** generate revenues **above $360K each**, while the **bottom 10 products** barely cross **$40K**, indicating a **long tail** in product performance.
* **Computers** and **Home Appliances** are the **leading categories**, with the **Desktop PC and HDTV models** dominating revenue.
* **Adventure works, Contoso** and **wide world importers** are the top performing brands across the countries.

**4. Customer Behavior**

* **Male and female customers are nearly equal** in distribution.
* **Customers aged 20–29 and 30–39** have the **highest average sales**, followed closely by other working-age groups.
* **61.16%** of customers made repeat purchases, a strong indicator of loyalty.
* Repeat customers tend to be **high-value customers**, with some placing **10–14 orders**.

**6. Delivery Performance**

* Most deliveries are fulfilled within **5 to 10 days**, but a **long tail of late deliveries** exists.

**Recommendations**

1. **Boost High-Performing Products:**
   * Focus marketing and stock on **top-performing desktops and HDTVs**.
   * Consider bundling low-selling accessories with high-demand products to move inventory.
2. **Strengthen Online Channel:**
   * Online sales are significant; optimize website experience, recommendations, and delivery for further growth.
3. **Geographic Expansion:**
   * Analyze high-performing states (e.g., California, Texas) and expand store presence or invest in local marketing.
4. **Improve Delivery Time:**
   * Investigate reasons for outliers in delivery delays and optimize logistics to enhance customer satisfaction.
5. **Customer Loyalty Programs:**
   * With 61% repeat rate, implement or refine loyalty programs to further encourage repeat purchases.
   * Target high-frequency buyers with **exclusive promotions** or early access to sales.
   * Target low-frequency buyers with discounts on their next purchases.
6. **Optimize Store Operations:**
   * Study low-performing stores (e.g., Store Key 2 or 18) for root causes – location, staff, inventory, etc.
   * Replicate practices of top-performing stores in underperforming regions.
   * Analyze newly opened stores for their underperformance
7. **Age-Specific Campaigns:**
   * Tailor marketing campaigns toward age groups **20–39**, which drive higher average revenue.
   * Tailor marketing campaigns toward other age groups to encourage people to buy products.