

# Business Insights

**1.) Optimized Stocking Strategy:** To improve inventory management, we identified the top five best-selling products in each region. This enables region-specific stocking to meet demand effectively:

- Asia: HomeSense T-Shirt, ActiveWear Jacket, HomeSense Desk Lamp, SoundWave Headphones, ActiveWear Smartwatch
- Europe: ActiveWear Rug, SoundWave Headphones, SoundWave Cookbook, BookWorld Cookbook, TechPro Textbook
- North America: SoundWave Headphones, BookWorld Biography, ActiveWear Smartwatch, TechPro T-Shirt, ActiveWear Jacket
- South America: ActiveWear Smartwatch, ActiveWear Textbook, HomeSense Desk Lamp, SoundWave Cookbook, ActiveWear Rug

**2.) Marketing Campaign Effectiveness:** By analyzing regional sign-up trends, we identified that South America experienced a significant increase in sign-ups between February and April 2023. This indicates that the marketing campaign executed in this period was highly effective, providing valuable insights for future campaign strategies.

**3.) Region-Wise Revenue Contribution:** Analyzing revenue generation across regions helps tailor strategic initiatives. South America emerges as a high-performing market, suggesting an opportunity to introduce new products and expand offerings. Asia and North America show lower revenue contributions, indicating the need for targeted sales strategies and marketing efforts to boost performance in these regions.

**4.) Product Category Trends:** Tracking category-wise trends over time reveals valuable insights into seasonal demand. The Books category experiences a surge in April, likely due to the beginning of new school sessions in various regions. After August, book sales decline steadily, suggesting a potential opportunity to introduce targeted promotions to sustain sales.

**5.) Product Recommendations & Bundling:** We attempted to identify frequently purchased item-sets to facilitate personalized recommendations and optimize product bundling. However, no strong purchase correlations were found in the dataset. This suggests that purchases are largely independent and alternative bundling strategies should be explored.

**6.) Seasonal and Temporal Purchasing Trends:** While no prominent seasonal trends were observed, Wednesdays consistently show the highest order volume. This insight suggests that scheduling targeted notifications or promotional campaigns mid-week could maximize customer engagement and sales.