

5 business insights from EDA

1) Category wise product quantities sale in regions.

South America emerges as the powerhouse market, dominating in Books Electronics and Home Decor. Asia shows strength in Clothing but lags in Books . Europe maintains consistent mid-range performance across categories except for Clothing, where it shows the lowest sales. Targeted regional marketing strategies are needed.

2) Calculating and visualize region-wise total revenue and the split of total revenue by product category for each region

The revenue analysis reveals South America as the highest revenue generator, with Books being their top performer (\$69,752). Asia shows strong performance in Clothing (\$49,353), while Europe maintains balanced revenue across categories. North America's highest revenue comes from Electronics (\$44,716). We should be focusing on optimizing inventory and marketing strategies based on regional revenue drivers for maximum profitability.

3) Seeing the trend of how many transactions are happening daywise and then subdividing them into regions.

South America shows peak activity on Wednesday-Thursday (50 transactions each), while North America peaks on Tuesdays (47 transactions). Asia's busiest day is Wednesday (41 transactions), with noticeable dips on weekends. Europe maintains consistent transaction levels (30-37 transactions) throughout the week. Overall, midweek shows higher transaction volumes across all regions.

4) Customer Retention i.e 2022 and 2023 (before october) active in 2024

South America demonstrates exceptional retention with 25 customers from 2022-2023 remaining active in 2024, significantly outperforming other regions. Europe shows moderate retention (16 customers), while Asia maintains stable retention (13 customers). North America displays the lowest retention rate (10 customers), suggesting an urgent need for improved customer engagement strategies in this region.

5) Top 5 products category wise

We can see that BookWorld Sweater dominates the Clothing category, ActiveWear Smartwatch dominates the Electronics category, ActiveWear Rug dominates the Home Decor category and SoundWave Novel dominates the Books category.