

Business Insights from Exploratory Data Analysis

Customers Insight

The Customers.csv dataset shows that Asia and South America are big markets, contributing 35% and 32% of total customers, respectively. Notably, Asia's customer base grew sharply in 2024. In contrast, Europe and North America show steady but slower growth. Customers in Asia signed up predominantly in Q2 and Q4 of 2024, coinciding with regional festivals or sales events. Aligning product launches with these periods could boost conversions.

Products Insight

The **Electronics** and **Books** categories dominate the product catalog, making up 26% and 25% of total products, respectively. However, **Home Decor** (28 products) quietly emerges as a significant segment, suggesting untapped potential.

Key Takeaway:

- Electronics and Books have wide price ranges, hinting at opportunities to segment marketing campaigns by price tier.
- Home Decor's strong presence, coupled with high-priced items, suggests a market for curated, premium home goods.

Brand Insight

Brands like ActiveWear (23 products) and SoundWave (22 products) dominate across categories, but TechPro stands out with the highest average price (293). This premium positioning aligns with TechPro's focus on Electronics and Books, which are perceived as high-value categories.

Key Takeaway:

- Brands like TechPro and SoundWave can leverage their premium pricing to build perceived quality.
- HomeSense, with the lowest average price (\$204), could target cost-conscious shoppers through bundled deals or loyalty programs.

Other Hidden Insights

Duplicate Products: ActiveWear Cookware Set appears twice with vastly different prices. This could confuse customers or indicate inconsistent pricing strategies.

Strategic Recommendations

- Promote Electronics in Asia and Home Decor in Europe, where signups suggest appetite for lifestyle upgrades.
- Audit duplicate products and standardize pricing.
- Capitalize on Asia's 2024 Q4 signup surge with limited-time offers