

Business Insights Report

Below are the key business insights derived from the Exploratory Data Analysis (EDA):

CUSTOMERS DATASET:

1. South America leads in customer count (59), followed by Europe (50), North America (46), and Asia (45), indicating a balanced customer base globally with slight dominance in South America.
2. Signups show steady growth: 64 in 2022, 57 in 2023, and 79 in 2024, reflecting increasing Customer purchases year-by-year.
3. April and September have the highest signups (24 and 21 respectively), hitting at seasonal demand spikes, while August records the lowest (10).
4. Signups per region exhibit consistent year-by-year trends, suggesting stable performance across geographies without major fluctuations.
5. Quarterly analysis shows stronger signup activity in Q1 and Q2, making these periods critical for marketing and outreach strategies.

These insights help in understanding customer behaviour, identifying critical periods for outreach, and planning regional and seasonal strategies to enhance business performance.

PRODUCTS DATASET:

1. **High-End Electronics Demand:** Electronics, especially smartwatches and headphones, attract premium prices, indicating a market for high-end products.
2. **Popular Price Range:** Most products are priced between \$100-\$200, highlighting a strong demand for affordable, quality items.
3. **Books as Budget-Friendly Options:** The books category features many lower-priced items, appealing to budget-conscious consumers.

4. **Home Decor Growth Potential:** Home decor shows a wide price range, suggesting growth opportunities in both mid-range and premium segments.
5. **Seasonal Sales Opportunities:** Diverse product pricing indicates potential for seasonal promotions to boost mid-range sales during holidays.

TRANSACTIONS DATASET:

1. **Product Performance:** Product P029 generated the highest revenue (₹19,513.80), followed by P079 (₹17,946.91). These products are the most profitable and should be prioritized in promotions and stock management.
2. **Customer Spending:** Customer C0141 spent the most (₹10,673.87), with the top 10 customers contributing a substantial share of revenue. Retaining these customers through loyalty programs could enhance profitability.
3. **Seasonal Trends:** December recorded the highest average transaction value (₹766.08), highlighting strong seasonal demand. Marketing campaigns during this period can boost sales.
4. **Purchase Patterns:** Transactions involving 4 units are most frequent, indicating a preference for moderate bulk purchases. Offering discounts on similar quantities could increase sales.
5. **Revenue Drivers:** A strong correlation between Price and Total Value (0.72) indicates that high-priced products drive revenue significantly. Focusing on premium product lines could maximize profitability.