**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.

1. Signups show steady growth: 64 in 2022, 57 in 2023, and 79 in 2024, reflecting increasing

Customer purchases year-by-year.

1. April and September have the highest signups (24 and 21 respectively), hitting at seasonal demand spikes, while August records the lowest (10).
2. Signups per region exhibit consistent year-by-year trends, suggesting stable performance

across geographies without major fluctuations.

1. 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.**