

EDA & BUSINESS INSIGHTS

Insight 1: Regional Sales Performance

South America contributes the highest revenue, followed by Europe and North America. Asia generates the least revenue, indicating untapped potential in that region. Regional campaigns, localized discounts, and customer-specific offers can help boost Asian sales. This insight highlights the need for targeted marketing strategies to optimize regional performance and tap into underperforming markets.

Insight 2: Popular Product Categories

Books are the most purchased product category, followed closely by Clothing, Electronics, and Home Decor. All categories show relatively balanced sales, but Books slightly outperform. This suggests an opportunity to capitalize on Books' popularity through discounts, bundle offers, or loyalty programs. At the same time, balanced promotions across other categories will sustain steady growth.

Insight 3: Seasonal Trends

Sales peak in December due to holiday shopping and promotional offers, showing seasonal demand patterns. However, significant dips occur during mid-year months such as June and July. This indicates the need for mid-year promotional campaigns or product launches to stabilize revenue and maintain customer engagement during traditionally slow periods.

Insight 4: Transaction Trends Over Time

Transactions exhibit a steady trend overall, with peaks in December and fluctuations throughout the year. Occasional drops in transaction values during certain months suggest possible supply chain or demand issues. Addressing these issues through inventory management or targeted marketing can ensure consistent growth and maintain high customer satisfaction.

Insight 5: Customer Value

High-value customers (top 10%) contribute disproportionately to revenue, generating around 30% of total sales. This highlights the importance of customer retention strategies such as loyalty programs, personalized recommendations, and exclusive discounts. Maintaining this segment's engagement will sustain profitability and drive repeat purchases over time.

Actionable Recommendations

1. **Regional Focus:** Strengthen marketing campaigns in Asia while retaining the strong performance in South America.
2. **Product Promotions:** Leverage the popularity of Books while diversifying sales across other categories.
3. **Seasonal Campaigns:** Stabilize revenue with mid-year promotions and special events during slow months.
4. **Operational Improvements:** Investigate reasons for monthly sales dips and optimize inventory management.
5. **Customer Retention:** Prioritize high-value customers with loyalty rewards and exclusive benefits.