

Business Insights

1. Transaction Value Distribution Insight

- The histogram reveals a right-skewed distribution, with most transactions in the range of 0-500.
- High frequency in smaller transaction values indicates customer preference for budget-friendly items.
- A gradual decline is observed as transaction values increase, with fewer purchases over 1000.
- Promotions or discounts on higher-value items could shift the curve to the right.
- This skewed trend highlights a potential opportunity to target low-value purchase customers with bundle offers.
- Customer segmentation can identify frequent small spenders for upselling strategies.
- Low average transaction values may suggest economic constraints or cautious spending.

2. Customer Signup Trend Insight

- Signups have been fluctuating but show notable peaks, particularly around mid-2024.
- This suggests successful seasonal campaigns or events driving customer engagement.
- The drop in certain periods could indicate the need for consistent marketing.
- Retention strategies can be prioritized to maintain user interest during low-activity periods.
- Spikes may also be related to new product launches or promotional activities.
- Analyzing peak periods can uncover which campaigns were most effective.
- Signups over time can serve as a benchmark for future campaigns.
- Consistent growth indicates a steady interest in the business's offerings.

3. Product Category Popularity Insight

- "Home Decor" leads in popularity, suggesting a high demand for these products.
- "Clothing" and "Electronics" follow, indicating strong but secondary interest.
- "Books" are the least popular, representing a niche market.

- Marketing efforts can focus on expanding "Home Decor" inventory to capitalize on demand.
- Promotions in less popular categories may drive sales diversification.
- Customer surveys can help understand preferences behind top categories.
- These insights can refine inventory planning to reduce holding costs.
- Enhanced targeting for popular categories can improve ad efficiency and ROI.
- Data highlights potential for cross-category promotions to boost sales.

4. Revenue Contribution by Region

- South America contributes the highest revenue, establishing it as the most lucrative market for the business.
- Asia, North America, and Europe have similar revenue levels but show potential for growth compared to South America.
- Tailored campaigns in underperforming regions could improve customer engagement and revenue generation.
- South America's success may stem from a larger customer base or higher average transaction values.
- Diversifying investment across regions could reduce reliance on South America and balance global revenue streams.
- Identifying the factors driving South America's success can help replicate these strategies in other regions.

5. Correlation Matrix

- A strong positive correlation (0.72) exists between TotalValue and Price, indicating that higher-priced products are key drivers of revenue.
- The weak correlation (-0.0094) between Quantity and Price suggests that price changes have minimal impact on purchase volumes.
- A moderate correlation (0.61) between Quantity and TotalValue shows that transaction size contributes to revenue, though not as strongly as price.
- Businesses should focus on promoting premium-priced products to maximize revenue contributions.
- Pricing strategies can be optimized without negatively affecting the quantity of products sold.
- Insights from these correlations can guide pricing and sales strategies to enhance overall profitability.