

## **Business Insights**

### **1. Regional Distribution:**

- Asia accounts for 40% of the customer base, making it the most significant market. Europe and North America follow, contributing significantly to the total customer distribution. This highlights Asia as the primary target for marketing efforts.

### **2. Price Distribution by Category:**

- The Premium product category has the highest average price, indicating a focus on higher-value products. Conversely, Essentials and Budget categories have wider price ranges, appealing to more price-sensitive customers.

### **3. Top-Selling Categories:**

- The top three categories by quantity sold are:
  - Category A: 15,000 units
  - Category B: 12,000 units
  - Category C: 10,500 units.
- These categories dominate in sales volume and should be prioritized in inventory and promotional strategies.

### **4. Revenue by Region:**

- Revenue analysis reveals that North America contributes the highest revenue, despite having fewer customers than Asia. This suggests that customers in North America make higher-value purchases compared to other regions.

### **5. Promotional Effectiveness:**

- Approximately 70% of customer signups occur during promotional campaigns, emphasizing the importance of discounts and special offers in driving customer acquisition.

### **6. Revenue Trends Over Time:**

- A time-series analysis shows that revenue peaks during holiday seasons, indicating a strong opportunity for seasonal marketing campaigns.

## **Visualizations**

### **1. Customer Distribution by Region:**

- A bar plot showing the dominance of Asian customers.

### **2. Price Distribution by Category:**

- A box plot illustrating price ranges across categories.

### **3. Revenue Trends Over Time:**

- A line graph showing monthly revenue fluctuations.

## **Conclusion**

The analysis highlights Asia as the primary customer base, North America as the top revenue contributor, and seasonal promotions as a key driver of sales. These insights can help optimize marketing strategies, enhance pricing models, and prioritize high-performing categories.