

## **Business Insights from Exploratory Data Analysis (EDA)**

### **Regional Sales Distribution:**

The data reveals that South America contributes the highest total sales, followed by Europe and North America. This suggests that the South American market is significantly outperforming other regions. To further optimize global sales, targeted marketing strategies and product offerings tailored to the North American and Asian markets may be required.

### **Monthly Sales Trends:**

A clear pattern of fluctuations in monthly sales was observed, indicating seasonal demand variations. This insight provides an opportunity to optimize inventory management and tailor promotional campaigns to align with peak sales periods, thereby maximizing revenue and customer engagement.

### **Peak Transaction Hours:**

Transaction volumes exhibit distinct peaks during certain hours of the day, suggesting specific times of heightened customer activity. Leveraging this information, businesses can time marketing campaigns and promotions to coincide with peak hours, enhancing customer conversion and boosting overall sales performance.

### **Product Performance During Peak Hours:**

Analysis of product sales during peak transaction hours indicates that certain products consistently perform better at these times. Strategic restocking and promotion of these high-demand products during peak hours can optimize sales and improve operational efficiency.

### **Stock Recommendations Based on Sales Performance:**

A detailed analysis of sales and quantities sold highlights products that consistently generate high sales figures. By prioritizing the restocking of these high-performing items, businesses can mitigate stockouts, ensure product availability, and meet consumer demand, thereby enhancing customer satisfaction and sustaining revenue growth.