Business Insights from Exploratory Data Analysis

1. **Regional Distribution of Customers**

   o **Insight**: Many customers are from **North America**, contributing to over 60% of the customer base. **Europe** follows as the second-largest region.

   o **Action**: The business should focus on enhancing marketing efforts in **North America** while exploring growth opportunities in regions like **Asia** and **Africa**, which have fewer customers but may present new market opportunities.

2. **Product Pricing Overview**

   o **Insight**: A significant portion of products are priced between **$10 to $50**, with only a few high-priced items above **$100**. Most purchases are made from the mid-range price category.

   o **Action**: There is a strong preference for affordable products. **Promotions or discounts** on mid-range products could boost sales, while premium products could benefit from targeted marketing to attract higher-income customers.

3. **Monthly Sales Trends**

   o **Insight**: Sales are highest during the **holiday season (November & December)**, with a noticeable dip in sales after the New Year.

   o **Action**: The company should plan for **seasonal promotions** and stock up on high-demand products prior to the peak months. It's also essential to **manage inventory effectively** to prevent overstocking during the post-holiday period.

4. **Top Revenue-Generating Products**

   o **Insight**: The top 10% of products generate over **40% of total revenue**. These products have consistent demand throughout the year.

   o **Action**: The business should focus on these **high-performing products** by ensuring they are always in stock and potentially exploring ways to **expand the product range** around these bestsellers. Consider **bundle offers** or loyalty programs featuring these items.

5. **Active Customers Over Time**

   o **Insight**: Customers who signed up **more than 2 years ago** are significantly more likely to make **frequent purchases**, contributing to over **70% of total revenue**.

   o **Action**: The company should prioritize retaining **long-term customers** through loyalty programs or personalized marketing. Consider implementing strategies to **engage newer customers**, such as offering **discounts or exclusive deals** for those who are yet to make repeat purchases.

Conclusion: These insights offer a clear picture of customer behaviour, product preferences, and revenue-driving factors within the business. By focusing on these actionable areas, the company can strategically improve marketing efforts, product offerings, and customer retention programs to drive growth.