

# Exploratory Data Analysis (EDA) and Business Insights

## Business Insights Derived from EDA

### Customer Concentration:

The majority of customers are from North America and Europe, indicating that these regions dominate the customer base. However, there is potential for expansion into other regions, particularly Africa and Asia, where customer representation is lower. Targeted marketing strategies for these regions could help diversify the customer pool.

### Product Price Range:

Most products fall within the \$10 to \$50 price range, which indicates that the bulk of sales come from affordable products. There is a potential to introduce premium-priced items for higher-value customers, as well as budget options to cater to price-sensitive consumers.

### Regional Sales Disparity:

North America accounts for the highest total sales, followed by Europe. Regions like Asia and Africa show lower sales figures, suggesting a need for localized campaigns and promotional activities to stimulate demand and increase market share in these regions.

### Popular Product Categories:

Electronics emerge as the highest-performing product category in terms of sales, while categories such as home appliances and furniture show a relatively lower sales contribution. Strategies to expand the electronics inventory or offer promotions in less popular categories could drive further sales.

### Customer Engagement Trends:

Customers who signed up within the last 6 months are showing a higher frequency of transactions, suggesting higher engagement and satisfaction. This highlights an opportunity to implement loyalty

programs or special offers to retain these new customers and prevent them from churning.