

E-commerce Sales Analysis

The dataset is on the sales of an E-commerce website in the year 2015-2018.

The clean dataset consists of 9800 rows and 18 columns.

Column description for the dataset is as follows:

1. **Row ID:** Represents the row identifier.
2. **Order ID:** Represents the unique order ID of the e-commerce website.
3. **Order Date:** Represents the date when the order was placed.
4. **Ship Date:** Represents the date when the item was shipped.
5. **Ship Mode:** Represents the shipping mode for the item. There are 4 types of shipping modes: First Class, Same Day, Second Class, and Standard Class.
6. **Customer ID:** Represents the unique customer ID assigned to the customer.
7. **Segment:** Represents the segment of the purchase. There are 3 segments: Consumer, Corporate, and Home Office.
8. **Country:** Represents the country of sales. All sales have been made in the United States.
9. **City:** Represents the city where the purchase was shipped.
10. **State:** Represents the state where the purchase was shipped.
11. **Postal Code:** Represents the postal code of the shipping address.
12. **Region:** Represents the shipping region. There are 4 regions: North, South, East, and West.
13. **Product ID:** Represents the unique product ID.
14. **Category:** Represents the category of the purchased product. There are three categories: Furniture, Office Supplies, and Technology.
15. **Sub-category:** Represents the sub-category of the purchased product.
The sub-categories are:
 - Furniture: 4 sub-categories: Bookcases, Chairs, Furnishing, Tables
 - Office Supplies: 9 sub-categories: Appliances, Art, Binders, Envelopes, Fasteners, Labels, Paper, Storage, Supplies
 - Technology: 4 sub-categories: Accessories, Copiers, Machines, Phones
16. **Product Name:** Represents the name of the purchased product.
17. **Sales:** Represents the sales amount for the purchased product.
18. **Days to Ship:** Represents the number of days required to ship the product, ranging from 0 to 7 days.

Important Insights from the dashboard:

1. The top seven states by overall sales are **California, New York, Texas, Washington, Pennsylvania, Florida, and Illinois**, respectively.
2. The **West** region has the highest overall sales.
3. **Phones, Chairs, and Storage** are the top three sub-categories in terms of overall sales.
4. Among the three customer segments, **Consumers** are the highest overall buyers.
5. In **2015**, California had the highest sales, with **Phones and Chairs** being the most sold products on the website. The website had **589 distinct customers**, generating **\$479.86K** in overall sales. The **West** region recorded the highest overall sales.
6. In **2016**, California again had the highest sales, with **Chairs** being the most sold product on the website. The website had **567 distinct customers**, generating **\$459.44K** in overall sales. The **East** region recorded the highest overall sales.
7. In **2017**, California maintained the highest sales, with **Chairs** as the most sold product on the website. The website had **635 distinct customers**, generating **\$600.19K** in overall sales. The **West** region recorded the highest overall sales.
8. In **2018**, California had the highest sales, with **Phones** as the most sold product on the website. The website had **690 distinct customers**, generating **\$722.05K** in overall sales. The **West** region recorded the highest overall sales.
9. Among the **Furniture** category, **Chairs** were the most sold product, with total sales of **\$322.82K**.
10. Among the **Office Supplies** category, **Storage items** were the most sold products, with total sales of **\$219.34K**.
11. Among the **Technology** category, **Phones** were the most sold products, with total sales of **\$327.78K**.

Inferences for Business development:

1. Focus on targeted marketing campaigns and personalized offers in high-performing states such as **California, New York and Texas**, to further drive sales.
2. Invest in logistics and inventory management in the **West region** to ensure smooth operations and fast deliveries.
3. Launch promotions and discounts on high-demand products such as **Chairs, Phones and Storage**, to boost conversion rates further.
4. Prioritize marketing efforts toward **individual consumers** with personalized recommendations, loyalty programs, and exclusive discounts.