

## DS\_C6\_S6

### Interpretation: Sales Analysis

#### Task 1a: Ordered Column Chart

- This show trends of total sales over quarters & years that is in 2004, 4thQuarter have the maximum sales.
- Each group represents a year, with four columns (one for each quarter) side-by-side.

#### Task 1b: Pie Chart

- The largest slice of the pie represents the product line with the highest total sales. In this case, Classic Cars appears to be the dominant product line.
- Vintage Cars and Trucks and Buses seem to have significantly lower sales compared to Classic Cars and Motorcycles.
- The size of each slice represents the market share of that product line. A larger slice indicates a higher market share.

#### Task 1c: Line Chart

- This shows monthly sales trends over different years, allowing you to see if there are consistent peaks in certain months (eg:- November holiday season).
- From these charts, you'll likely observe if sales tend to spike in certain months & quarters (eg:- end-of-year holidays).

#### Task 1d: Area Chart

- The chart shows the total sales for different deal sizes over the years 2003, 2004, and 2005. Each colored area represents a specific deal size category (Small, Medium, Large).
- In 2003, medium-sized deals contributed the most to total sales.
- In 2004, large deals dominated the total sales.
- In 2005, medium-sized deals regained prominence.

## Interpretation: Customer Segmentation

### Task 2a: Horizontal Bar Chart:

- High Sales Regions: In certain countries (eg:-, U.S.A, Spain, France) have the darkest colour they are likely contributing significantly to overall revenue.
- Low Sales Regions: Countries with minimal sales might indicate an area where your product has not sold. (eg:- Ireland, Belgium)

### Task 2b: Horizontal Bar Chart

- High Sales Regions: The cities and states with high sales volumes (darker colours on the bar or taller bars on the chart). These regions are your key revenue contributors.
- Low Sales Regions: Lighter colors on the bar or shorter bars indicate regions with lower sales. These areas may present growth opportunities or need targeted marketing.

### Task 2c: Ordered Column Chart

- The top bars represent countries with the highest customer counts. These countries could be the primary markets and may benefit from focused marketing and sales efforts.
- Since each bar's length directly corresponds to the number of customers, it's easy to see how different countries compare.

### Task 2d: Stacked Column Chart

- In this visualization, you can see that in the EMEA territory, the majority of the sales come from Medium-sized deals, followed by small deals and then large deals.
- APAC and Japan territories appear to have relatively small bars, indicating lower total sales compared to EMEA. The colours in each bar segment also show the distribution of deal sizes

## **Interpretation: Sales Forecasting**

### **Task 3a: Line Chart**

- Look for an upward or downward trend in sales over the years. A rising line indicates sales growth, while a falling line shows a decrease.
- Sudden spikes or drops can indicate specific events, such as product launches, promotions, or market changes.

### **Task 3b: Line Chart**

- This line chart is designed to visualize the seasonal pattern of sales across different months and years. Each line represents a specific year (likely 2019 and 2020 based on the trend), and the y-axis indicates the total sales.
- Sales tend to peak during the holiday season (November and December) and dip during the slower months.
- The year 2020 shows a significant increase in sales compared to the previous year, particularly during the holiday season.

### **Task 3c: Dot Plot**

- Each product line (Classic Cars, Motorcycles, etc.) is represented by a different colour
- You can compare the sales performance of different product lines across years. For example, you can see which product line had the highest sales in a particular year or which product line has shown consistent growth over the years.
- Any data points that are significantly different from the rest can be considered outliers.

### **Task 3d: Ordered Column Chart**

- You can compare the sales for each month across the three years (2003, 2004, and 2005).
- You can compare the performance of different months within a year or across different years.
- Any significant deviations from the general trend can be considered outliers. These could be due to specific events, promotions, or external factors.

## **Interpretation: Product Performance**

### **Task 4a: Column Chart**

- Highest Quantity Ordered: The Classic Cars product line has the highest quantity ordered with 967 units.
- Lowest Quantity Ordered: The Trains product line has the lowest quantity ordered with 77 units.

### **Task 4b: Ordered Column Chart**

Top-Performing Products:

- The products with the longest bars have the highest quantity ordered.
- In this case, product codes like S18\_3222, S24\_3856, and S18\_4600 seem to be the top performers.

Product Variation:

- The variation in bar lengths indicates differences in sales performance across different product codes.
- Some products have significantly higher sales compared to others.

### **Task 4c:**

Overperforming Products:

- Products with significantly higher sales: These products have longer bars on the chart.
- Products that consistently outperform others across different time periods (if applicable).

Underperforming Products:

- Products with significantly lower sales: These products have shorter bars on the chart.
- Products that consistently underperform compared to others.

## **Interpretation: Sales & Customer Segmentation (Dashboard)**

### **Task 5: Sales & Customer Segmentation**

- 1) Sales Trend:
  - The line chart shows a clear upward trend in sales from 2003 to 2005.
  - The peak sales period seems to be towards the end of the year.
- 2) Product Line Performance:
  - Classic Cars and Motorcycles dominate the sales, followed by Trucks and Buses.
  - Planes and Vintage Cars have the lowest sales contribution.
- 3) Regional Performance:
  - APAC and EMEA regions seem to be the top-performing regions.
  - USA and UK are the top-performing countries within their respective regions.
- 4) Customer Segmentation:
  - USA has the highest number of customers, followed by Spain and France.
- 5) Sales by Territory:
  - The bar chart highlights the top-performing territories, with APAC and EMEA regions leading the way.

## **Interpretation: Sales Forecasting (Dashboard)**

### **Task 6: Sales Forecasting**

- 1) Seasonal Trends:
  - The line charts clearly show seasonal patterns in sales, with peaks during certain months (likely holiday seasons or promotional periods).
  - This suggests that historical data can be used to predict future sales trends.
- 2) Product-wise Performance:
  - The bar charts and scatter plots provide insights into the performance of different product lines. Some product lines might consistently outperform others.
- 3) Forecasting Accuracy:
  - The accuracy of the forecast can be assessed by comparing the predicted values with the actual sales data.
  - Factors like external economic conditions, market trends, and competitive landscape can influence forecast accuracy.
- 4) Potential Opportunities and Challenges:
  - By analysing the data, you can identify opportunities for growth, such as focusing on high-performing product lines or targeting specific customer segments.

## **Interpretation: Product Analysis (Dashboard)**

### **Task 7: Product Analysis**

- Classic Cars is the top-performing product line, with the highest quantity ordered.
- Vintage Cars and Motorcycles follow closely behind.
- Planes, Ships, Trains, and Trucks and Buses have significantly lower quantities ordered.
- Product-Level Performance: You can compare the performance of different products within a product line.
- Top-Performing Products: Identify the product codes with the highest quantities ordered within each product line.
- Product Line Dominance: Observe which product lines have a higher number of top-performing products.