Data Visualization

Dr. Boyce

Adidas Sales Dashboard

By

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Analyzing the Insights

Sales By Retailer

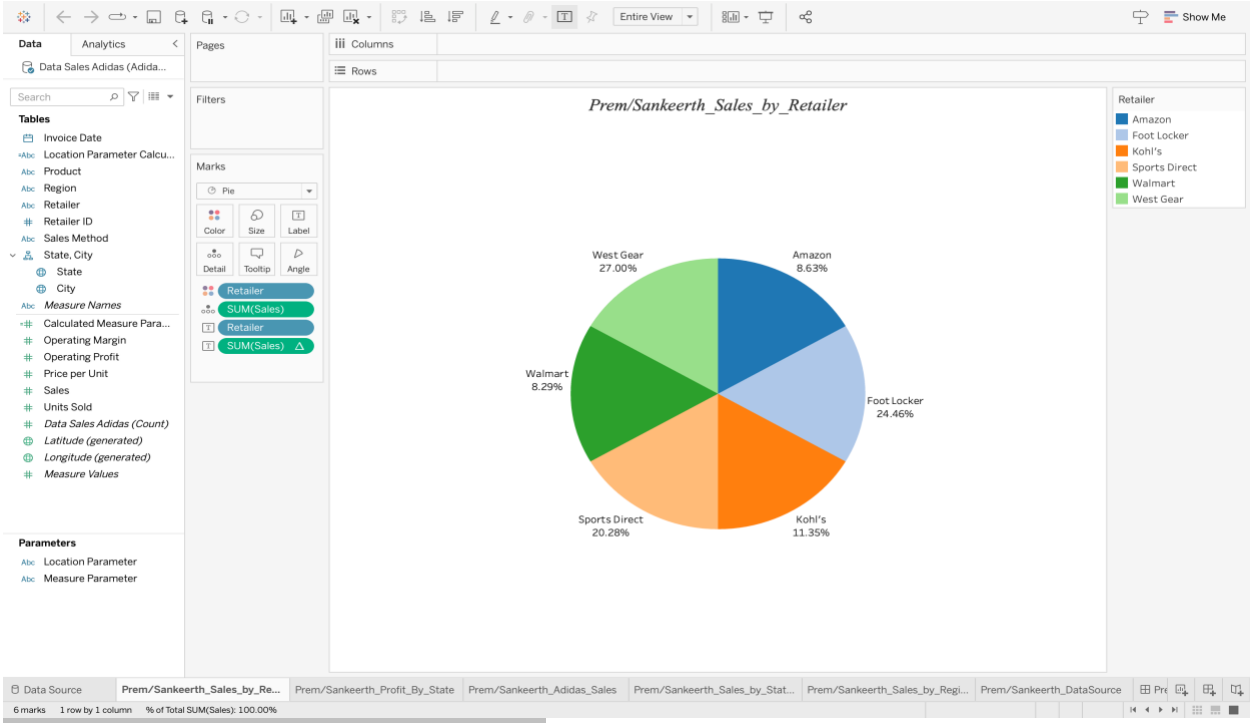

Figure 1: Prem/Sankeerth Sales by Retailer Chart.

Description

We have selected a sales-based insight as our first point of focus, specifically on the six retailers included in the Adidas Dataset: West Gear, Walmart, Sports Direct, Foot Locker, Kohl's, and Amazon. To effectively present this information, we opted to use a Pie chart which accurately reflects the proportion of sales from each retailer as shown in Figure 1. Additionally, we included percentage values to provide a clear understanding of which retailer has the highest and lowest sales. Based on the chart, West Gear is the top-performing retailer with 27% sales, while Walmart has the lowest sales at 8.29%.

Business Insight

All companies establish partnerships with specific retailers to sell their products. We created a pie chart to inform the Adidas product manager about which partners generate more sales and their percentage compared to others. The chart indicates in Figure 1 shows that West Gear has the highest sales while Walmart has the lowest. By analyzing the chart, the manager can decide which retailers need more products in the future and investigate why Walmart's sales are lower than those of other retailers. Adding colors and details to the chart will help to identify which retailer has highest sales based on the color and the details we see.

Profit By State

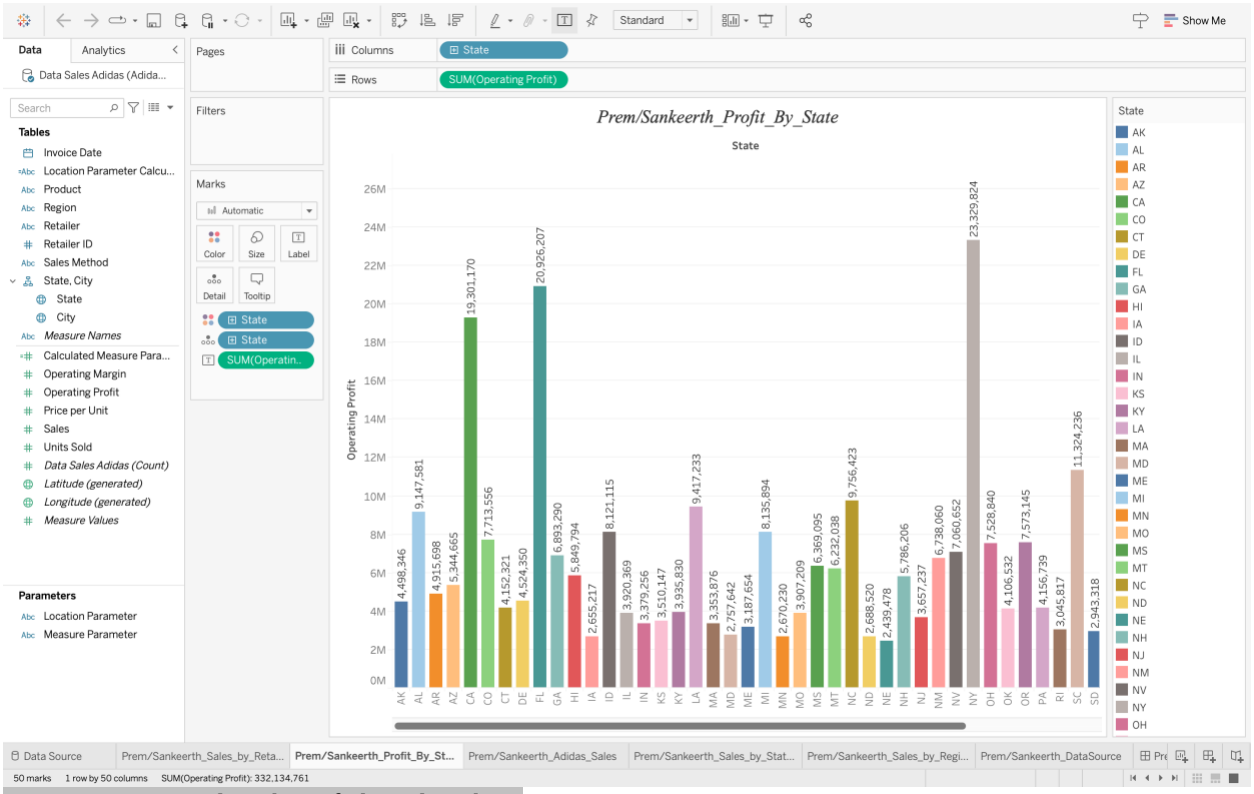

Figure 2: Prem/Sankeerth Profit by Sales Chart.

Description

We have conducted an analysis on Profit based on State as our second insight. To effectively present this information, we utilized column charts. We arranged the State parameter in the Column field and Sum of Operating profit in the Rows section to generate the column chart. To ensure clarity and readability, we also edited the aliases of the state names to display their abbreviations on the X-axis, while Operating profit values were displayed on the Y-axis. The column chart shows that New York state has the highest operating profit, while Nebraska has the lowest operating profit among all the states.

Business Insight

The company's marketing department evaluates the profits earned in each state to determine which state generates the highest profits. By examining the bar chart depicted in Figure 2, we can identify the states with the highest and lowest profits. Using this information, the sales manager can decide which states require more products and increased marketing efforts to sell more products and increase profits. Profits are influenced by customer demand for products and the popularity of specific products. With this insight, sales managers can increase profits by focusing on selling more products to states with high demand.

Adidas Sales (Parameters)

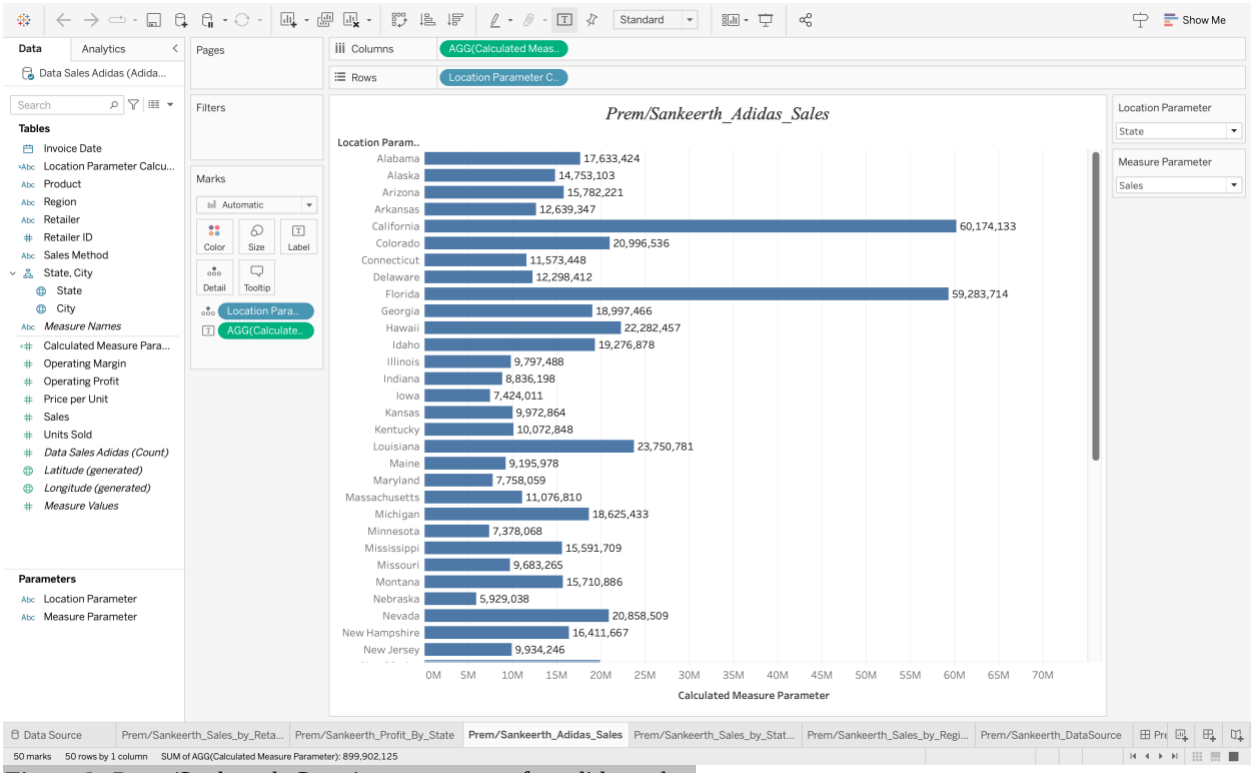

Figure 3: Prem/Sankeerth Creating parameters for adidas sales.

Description

Our third insight involves parameter-based analysis, where we created two parameters: location and measure parameters. The location parameter includes State, Location, and Region as values, while the measure parameter includes Sales, Operating profit, and Units sold as values. By selecting Sales as the measure parameter and State as the location parameter, we were able to generate a chart that displays the Adidas sales made by each state. Similarly, by selecting Region as the location parameter and Units sold as the measure parameter, we were able to generate a chart that shows the number of units sold in each region (Dr. Boyce, 2023). Upon using these parameters, we found that the West region had the highest number of units sold, while the Mid-west region had the lowest number of units sold.

Business Insight

We simplified the analysis process for the marketing department by creating parameters for location and measurement, which can be modified by using the drop-down menu on the left side of Figure 3. By selecting different options in the parameters, the manager can analyze which state generates the highest sales or profits. This information is helpful in improving marketing strategies and increasing sales and profits in states with lower sales or profits. The parameters also enable the identification of sales, profits, and units sold, making it easier to evaluate different aspects of the company's performance base on the selection made from the parameters.

Sales By States

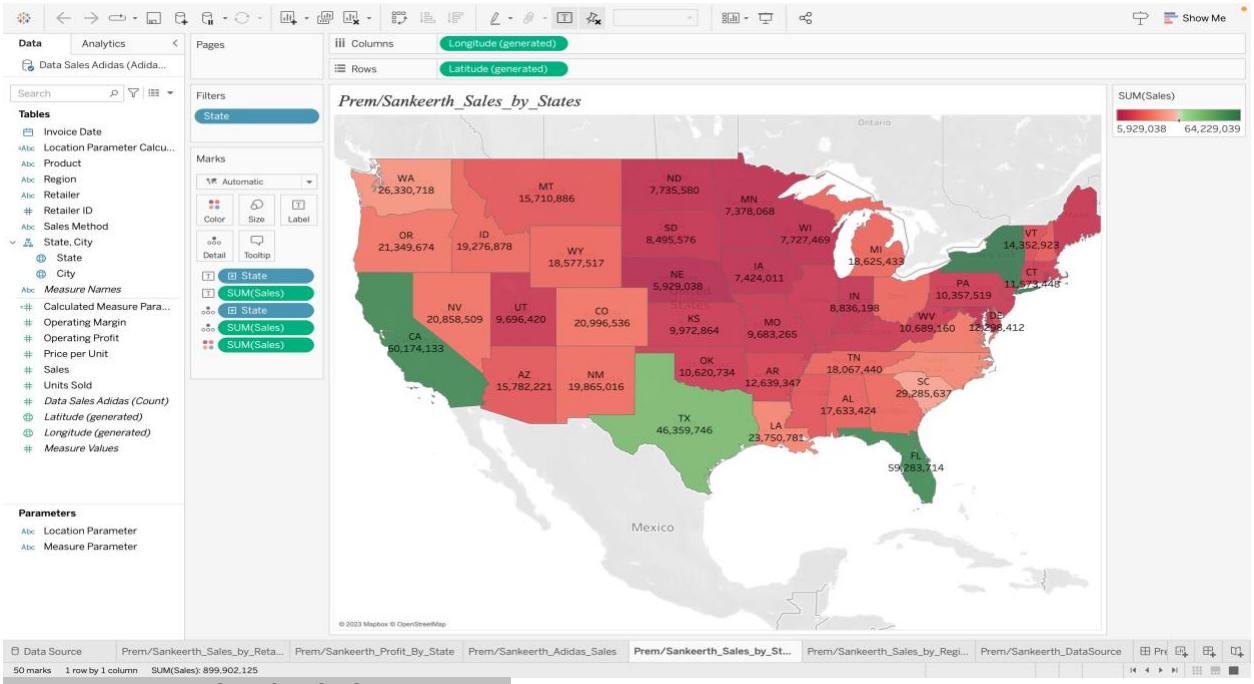

Figure 4: Prem/Sankeerth Sales by States Map.

Description

Our fourth insight pertains to sales based on states, and we utilized a map to display this information. After selecting the map, we applied a Red-Green diverging color scheme to the map to provide insight into the data. The green color represents the states with the highest sales, while the red color represents the states with the lowest sales. Additionally, we replaced the state names with their respective aliases and added the sales figures in the label tab to provide further clarity. Based on the map, we can see that New York state has the highest number of sales, followed by California and Texas. These three states top the sales and are represented in green color. On the other hand, Nebraska has the lowest sales and is represented in red color on the map.

Business Insight

Maps are essential tools for businesses as they enable individuals to identify regions with higher profits or sales through visual color-coded representations. Figure 4 displays color-coding, where red indicates negative impacts, while green indicates positive impacts. By using opacity, the map can distinguish which states have higher sales or profits. For instance, a bright red color indicates significant losses in a particular state, and the company members can investigate the causes of such losses and work to improve the situation. Conversely, a bright green color indicates that the state is performing well and generating high sales. To make the map more user-friendly, we created aliases for states and added sales details for each state, allowing managers to identify and work on specific areas of the business.

Sales By Region

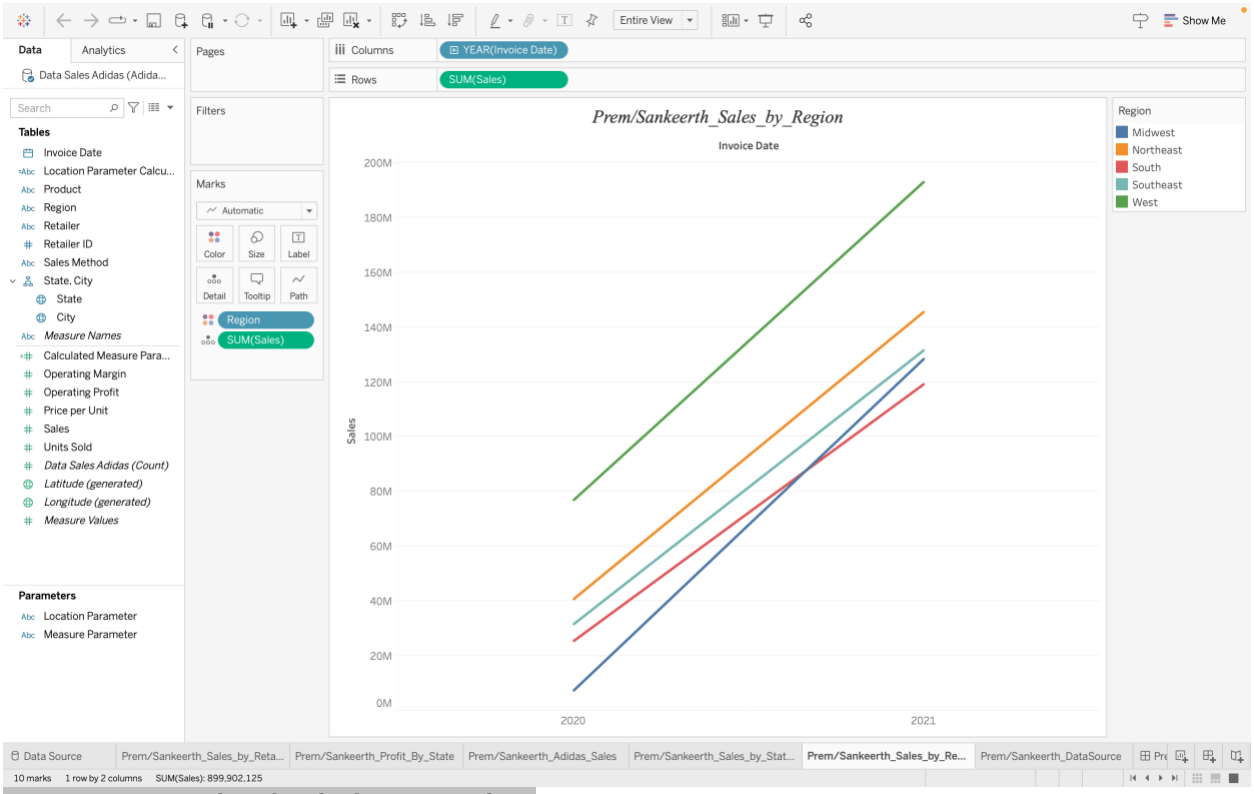

Figure 5: Prem/Sankeerth Sales by Region Chart.

Description

Our fifth and final insight pertains to sales based on regions. To represent this data, we used a line chart, with YEAR (Invoice Date) selected as the column and SUM(Sales) in the Rows section. We also included Region in the colors section to ensure proper representation of the data. Upon analyzing the line chart, we can observe an increase in sales across all regions from the year 2020 to 2021. The West region showed the highest growth among other regions, while the Midwest region overtook the sales of the South region in 2021. Additionally, in the year 2021, the South region had the lowest sales among all regions.

Business Insight

Every manager in the company monitors the gross income, whether it is profit or loss, throughout the year and how it changes over time. This information helps to identify whether the company is making a profit or experiencing losses over the years. Line charts are useful for observing changes in data over time, with numerical values representing data on both the x- and y-axes. The x-axis shows the time frame, while the y-axis displays the quantitative measure used to visualize the categories represented by each line in the chart. By examining this data, business professionals can identify regions with the highest sales over the years being considered. Adding colors to the line chart helps to represent the sales of specific regions over the years.

Data Source

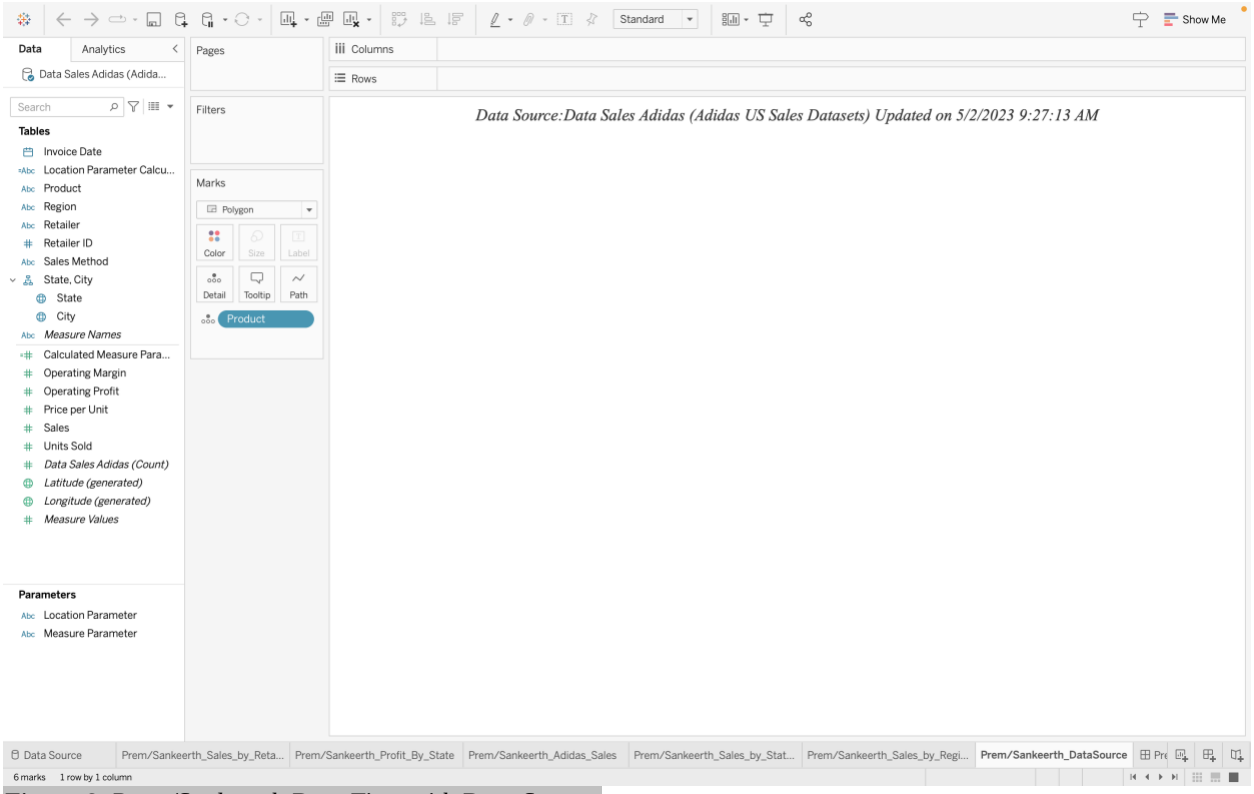

Figure 6: Prem/Sankeerth Date Time with Data Source.

Description

To make it easier for users to see when the data was last updated, I have created a simple title that displays both the data source and the date and time of the last update. By including this information in the title, users can quickly determine whether the data they are viewing is current. or if it needs to be updated.

Additionally, I have implemented a system that automatically updates the title with the most recent date and time whenever changes are made to the data. This ensures that the title is always accurate and up-to-date, and that users can rely on it as a trustworthy source of information.

Creating Dashboard

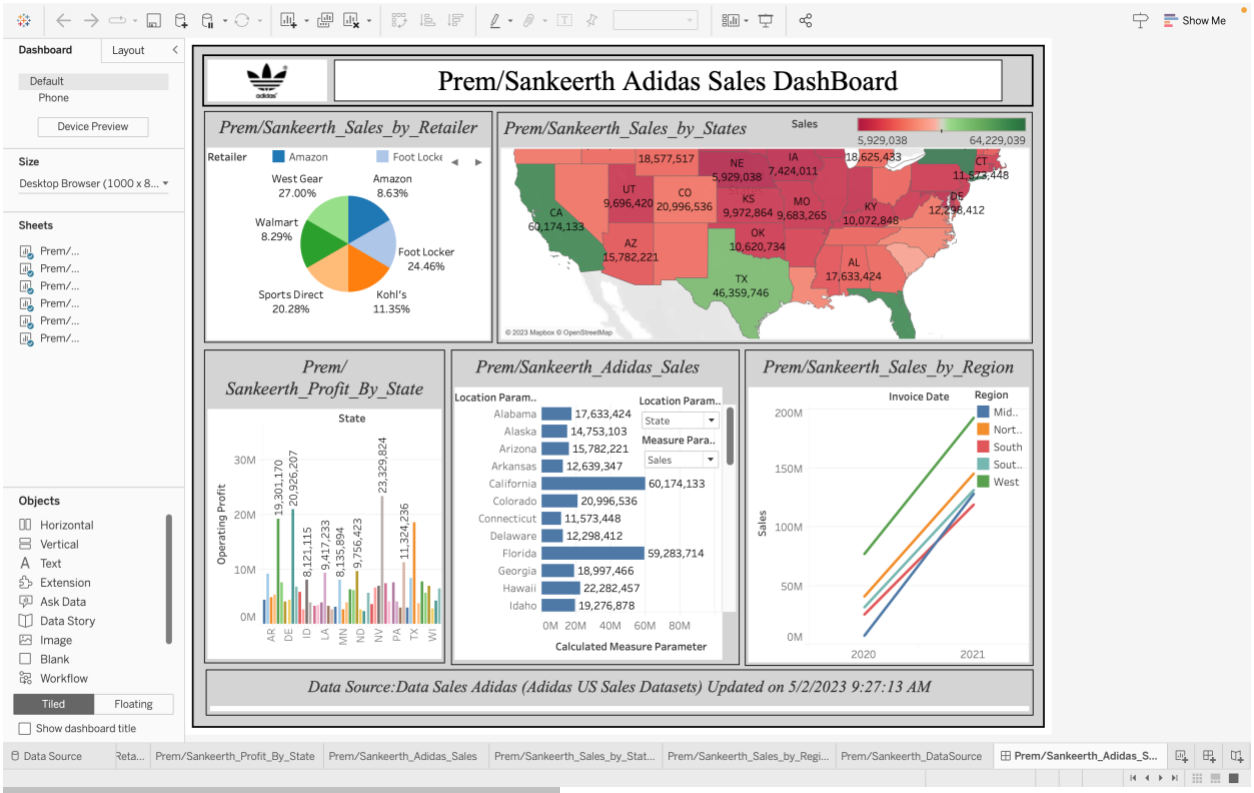

Figure 7: Prem/Sankeerth Adidas Sales Dashboard.

Creating Header

For the header section of our dashboard, we utilized a vertical box that includes both the logo and the title of the dashboard. This allows for a clear and concise representation of the dashboard's purpose and branding. Additionally, by having a distinct and visually appealing header, it makes the dashboard more engaging and encourages users to explore the data further. The use of a vertical box also helps to organize the dashboard and makes it easier to navigate (Dr. Boyce, 2023).

Logo

To visually represent our Adidas Sales dataset, we decided to use the Adidas logo [1]. The logo is a recognizable symbol of the brand and helps to establish a clear connection between the dashboard and the dataset being analyzed. By including the logo in the header section, users can easily identify the brand being analyzed and understand the context of the data presented. The link to the image of the Adidas logo can be found in the reference section of our dashboard.

Title

We named the dashboard we created as the "Prem/Sankeerth Adidas Sales Dashboard." This title gives a clear indication of the contents of the dashboard and who created it. The use of both names helps to identify the individuals responsible for the creation of the dashboard and adds a personal touch to the overall presentation. Additionally, including the name of the brand being analyzed in the title further reinforces the purpose of the dashboard and helps to establish a connection between the data being presented and the company itself.

Creating Body

Moving on to the main body section of our dashboard, we have incorporated a total of five vertical boxes to display the five sheets we have created. The body section begins with two vertical boxes, followed by three more at the bottom (Dr. Boyce, 2023).

In the first vertical box of the body section, we have included the "Sales by Retailer" sheet. This sheet consists of a pie chart that displays the sales made by each of the six retailers of Adidas. Each retailer is represented by a different color, and the percentage of sales they have contributed to the overall revenue is shown.

The second vertical box contains the "Sales by State" sheet, which features a map of the United States. This sheet represents the sales made by Adidas in each state, with the color of each state indicating the level of sales. Darker colors represent states with higher sales figures, while lighter colors indicate lower sales figures.

The third vertical box displays the "Profit by State" sheet, which presents a column chart of operating profit based on state abbreviations on x-axis and profit values on y-axis.

In the fourth vertical box, we have included the "Adidas Sales based on Parameters" sheet. This sheet includes a parameter filter in the upper right corner, allowing users to change the location and measure parameters and view the corresponding chart.

The fifth and final vertical box contains the "Sales by Region" sheet. This sheet includes a line chart that shows the sales figures of Adidas for each region from the year 2020 to 2021. Each region is represented by a different color, and the West region is shown to have the highest number of sales.

Creating Footer

In the footer section of our dashboard, we have added the name of the data source, which is the Adidas US sales dataset. This is to provide clear information about the origin of the data used in our analysis and visualization (Dr. Boyce, 2023).

Unexpected Findings

Finding 1:

Our initial discovery was related to the implementation of parameters, which allowed us to generate numerous charts and quickly gain insights across different fields within a single sheet. We originally set out to explore insights related to units sold per region, but while doing so, we considered the potential benefits of using parameters to analyze our data fields. We investigated the available options for implementing parameters, and ultimately decided to create location and measure parameters. The location parameter included options such as states, cities, and regions, while the measure parameter consisted of units sold, operating profit, and sales. Once we completed the parameter implementation, we were able to easily and efficiently gain multiple insights related to location and measures, all within a single sheet.

Finding 2:

We made another discovery that we have considered from the Module 13 on Canvas, which was the usefulness of implementing aliases. As we were analyzing state names in our data fields, we noticed that state names were overlapping with other names on the map, which made it difficult to read in column charts. To address this issue, we decided to add aliases for the state names. We manually added aliases for all the states and made sure that they were reflected in the sheets where we used state names for insights. As a result, the sheets that contained maps and column charts with state names appeared more visually appealing and less cluttered. The use of aliases helped us to clearly identify and differentiate the state names, which made it easier to understand our insights.

Finding 3:

Our third finding relates to the use of pie charts. Pie charts are commonly used to display percentages of a whole, and we found them to be particularly useful in our analysis of sales based on retailers. Initially, we had planned to use a column chart for this analysis. However, we soon realized that our dataset contained six different retailers, which would make it difficult to compare sales among them using a column chart. Considering this, we decided that a pie chart would be a more efficient way to display the percentages of sales for each retailer.

By utilizing a pie chart, we were able to depict each retailer as a distinct segment of the chart, with the size of each segment reflecting the retailer's share of total sales. We also used different colors to represent each retailer, which made it easier to distinguish between them. With the addition of percentages, it became clear that West Gear Retail had the highest percentage of sales for Adidas at 27%, followed by Foot Locker at 24.46%. In contrast, Walmart had the lowest percentage of sales at 8.29%.

Overall, the use of a pie chart allowed us to visually display the information we were looking for in an efficient and easy-to-understand manner.

Reference

[1] Aksitaykut, 2022, *Adidas logo sports commercial* (01 Jan 2022).

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[2] Dr. Boyce, 2023, *Data Visualization for Creating Parameters* (4 April, 2023).

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[3] Dr. Boyce, 2023, Walkthrough of Dashboards and Advanced Techniques (18 April 2023).

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