Adidas Sales Data Analysis: Documentation & Insights

Project Requirements:

- The objective of this assignment is to analyse the Adidas sales database and identify key insights to help improve sales performance and optimize business strategies. By examining the sales data, we aim to understand factors influencing sales, identify trends, and uncover opportunities for growth. Specifically, we need to come up with below aspects

    a. **Total Sales, Total Profit, Average Price per Unit, and Total Units Sold:**

    Calculate and visualize the overall sales, profit, average price per unit, and total units sold.

    b. **Profit by Retailer:**

    Analyse the total profit generated by each retailer and identify the top-performing retailers.

    c. **Sales Trend Over Time:**

    Track the trend of sales over time at different levels such as year, quarter, month, and day.

    d. **Units Sold by Product Category and Gender Type:**

    Analyse the total number of units sold by product category and gender type to understand customer preferences.

    e. **Top Performing Cities by Profit:**

    Identify the top 5 performing cities based on profit and gain insights into their sales strategies.

- ***Data Source:***

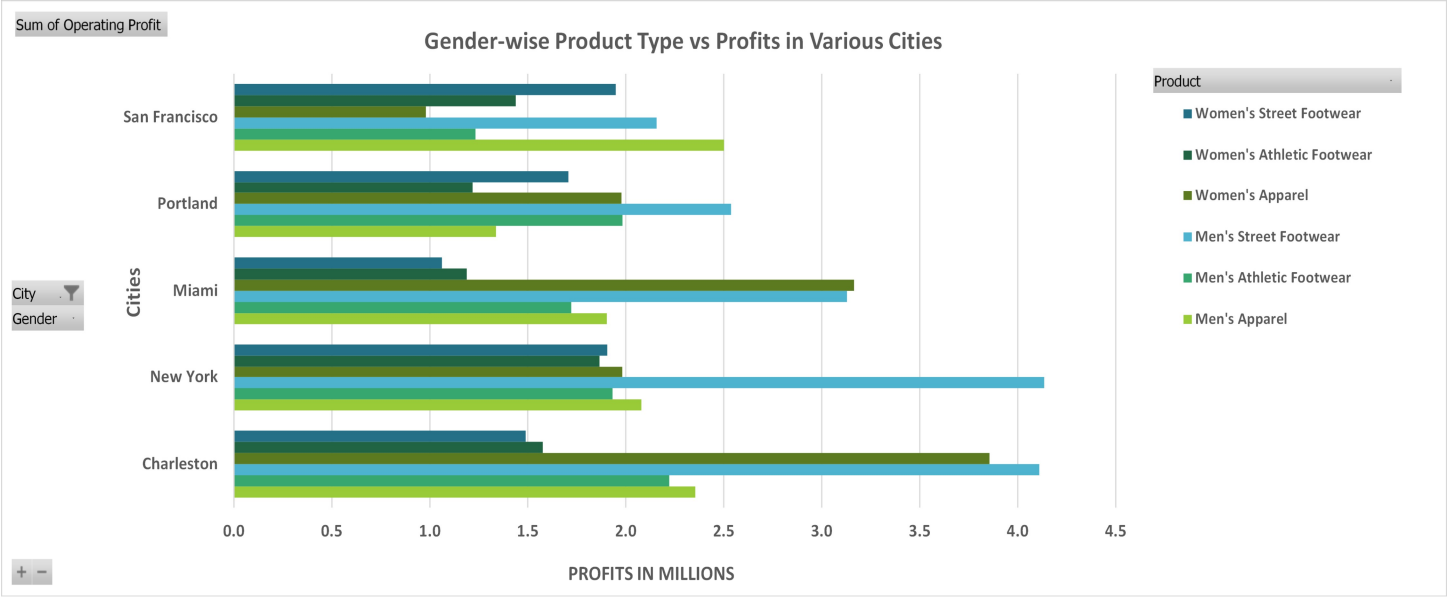
    https://www.kaggle.com/datasets/heemalichaudhari/adidas-sales-dataset

Objective 1: Top Performing Cities by Profit

► Identify the top 5 performing cities based on profit and gain insights into their sales strategies:

- **Top 5 performing cities:**

	Sum of Operating Profit	Sum of Total Sales	Average of Operating Margin
Charleston	1,56,07,190.1	3,99,74,797.0	44%
New York	1,38,99,973.2	3,98,01,235.0	40%
Miami	1,21,68,619.1	3,16,00,863.0	43%
Portland	1,07,60,799.4	3,05,45,652.0	41%
San Francisco	1,02,56,249.6	3,45,39,220.0	36%



• Strategic Insights:

1. ***Insight 1: Gender Preference Target Audience for Profits:***

San Francisco:

- Having Profits both from Male and Female products without any big gap. Slightly getting more profits from men's products
- Women's Apparel is lowest amongst the 15 cities, could see a good potential if worked on Women's Apparel
- Men's Apparel is the highest in top 5 cities

Portland:

- Earning almost equal profits from Men's and Women's products
- Can do better in Men's Apparel (Lowest in top 5)

Miami:

- Getting profits from certain categories of men's and women's products but not both equally
- Most of its profits from Men's Street footwear and Women's Apparel
- Has lowest profits in Women's Athletic Footwear and Street Footwear

New York:

- Has a very high profit from male products
- Highest profits from Men's Street Footwear
- Highest Women Athletic footwear in top 5
- Can do better in Women's Apparel

Charleston:

- Probably has the most well balanced gender-wise profit numbers in top 5
- Highest profits from Women's Apparel
- Highest profits from Men's Apparel
- Highest profits from Men's Athletic footwear

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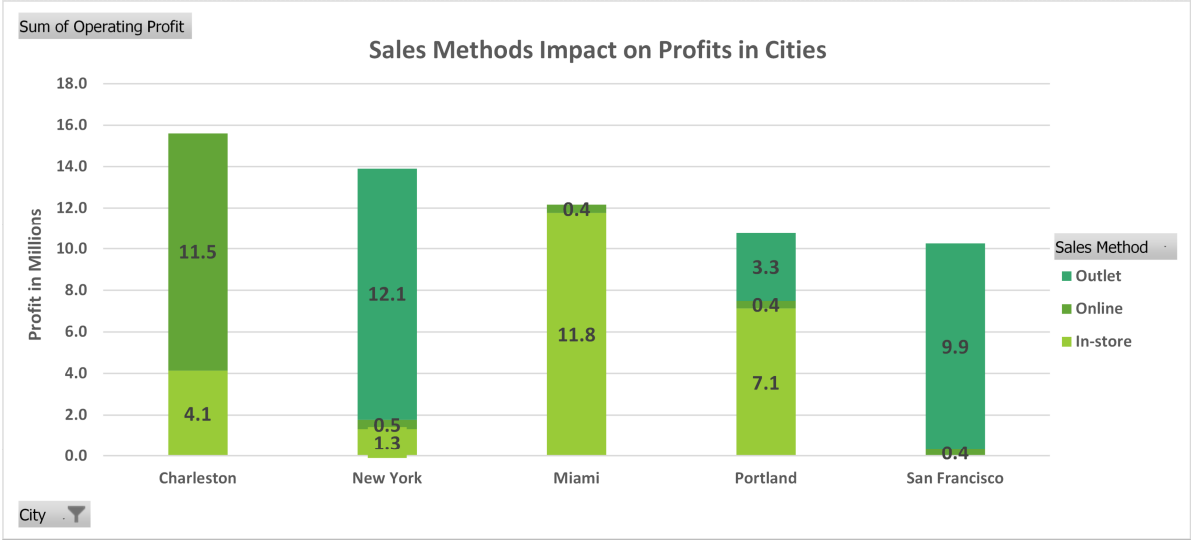
2. **Insight 2: Sales Method's Influence on Operating Profits:**



- **San Francisco** is getting majority of its profits from Outlet, has very few from online and no In-store sales
- **Portland** has well balanced profits pattern across three sales methods amongst the top 5 cities
- **Miami** has its most profits from Stores, low profits from online and has no outlets
- **New York** gets most profits from Outlets, few from Online and Stores
- **Charleston**, similar to Portland, has well a balanced profit stream from both In-store and online sales method. It does not have outlets.

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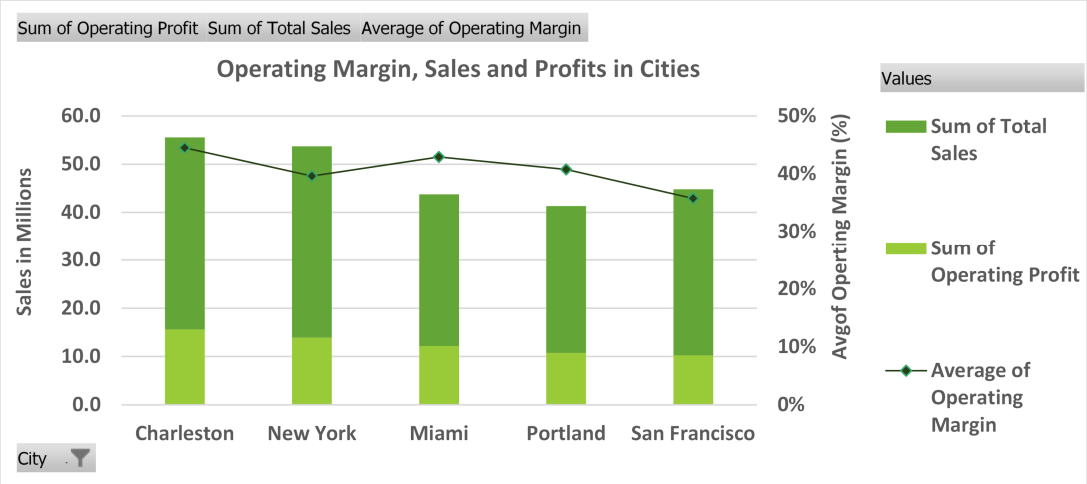
3. **Insight 3: Average operating Profit Margin vs Operating profits**

(Note: Higher the profit margin, better for the company)



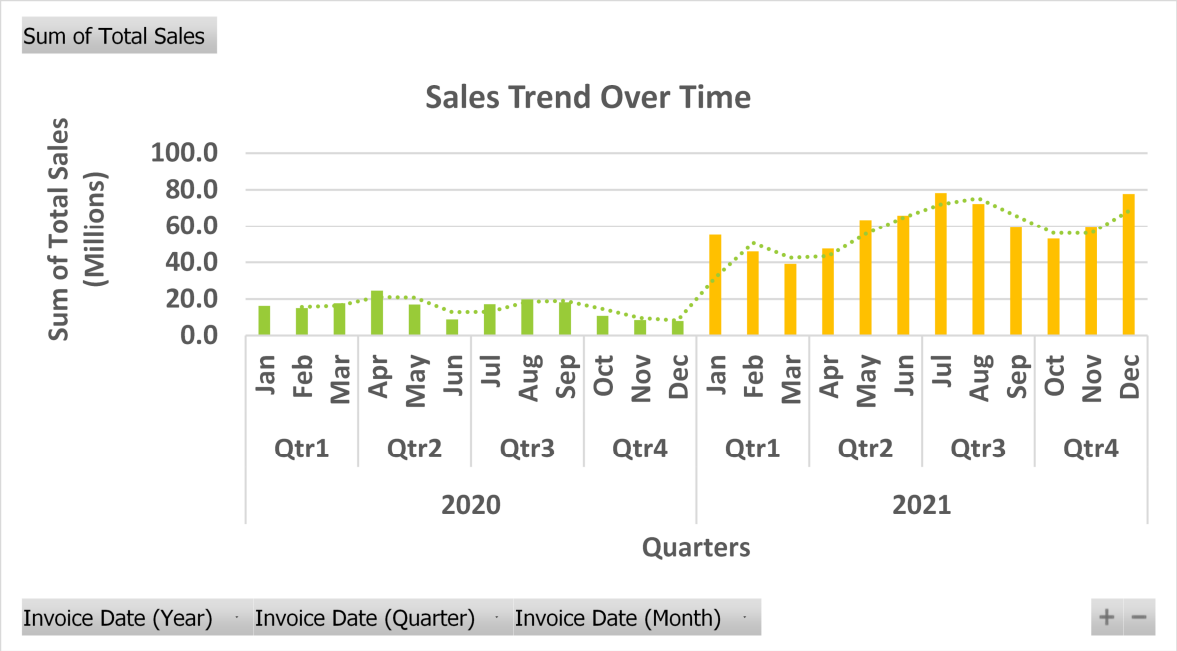
- **Charleston**'s avg operating margin percentage is comparably good to its operating profits and total sales.
- **New York**'s avg operating margin percentage is low to its total sales. (lowest compared to the top 5)
- **Miami** and **Portland** follow a similar trend to each other, which is healthier than any other city in the top 5.
- **San Francisco** avg operating margin is lower compared to its overall sales and profits, which isn't preferable.

Objective 2: Sales Trend Over Time

- Track the trend of sales over time at different levels such as year, quarter, month, and day:

- ***Problem:***
  Had trouble in changing the units in the sales axis (amount in Millions) of the graph.

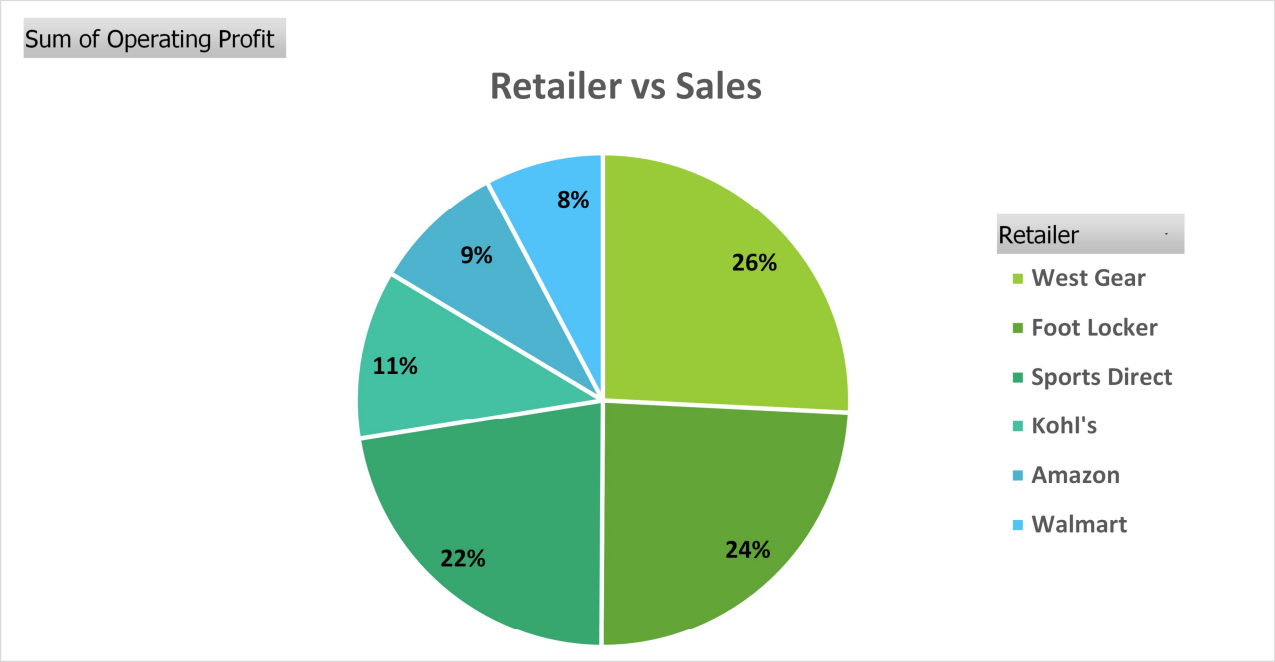
- ***Solution:***
  Right click on the axis -> format axis -> Display units -> Millions



Objective 3: Profit by Retailer

- Analyze the total profit generated by each retailer and identify the top-performing retailers:

Row Labels	Sum of Operating Profit ($)
Amazon	2,88,18,503.31
Foot Locker	8,07,22,124.81
Kohl's	3,68,11,252.58
Sports Direct	7,43,32,954.96
Walmart	2,57,82,052.61
West Gear	8,56,67,873.18
Grand Total	**33,21,34,761.45**



Objective 4: Total Sales, Total Profit, Average Price per Unit and Total Units Sold

- Calculate and visualize the overall sales, profit, average price per unit, and total units sold:

Values	
Sum of Total Sales ($)	89,99,02,125.0
Sum of Operating Profit ($)	33,21,34,761.4
Average of Price per Unit ($)	45.22
Sum of Units Sold	24,78,861

Objective 5: Gender-wise Product Category Performance

► Analyze the total number of units sold by product category and gender type to understand customer preferences:

- ***Problem:***

  How to create a row which specifies if the product is a female category product or a male?

- ***Solution:***

a. Make another row beside the "product category" named "gender".

b. If the cell has the word "Women" in it, categorise it under "Female", if not "Male".

c. Formula used: =IF(ISNUMBER(SEARCH("Women",G2)),"Female", "Male")

Row Labels	Sum of Units Sold
Female	**11,43,332**
Women's Apparel	4,33,827
Women's Athletic Footwear	3,17,236
Women's Street Footwear	3,92,269
Male	**13,35,529**
Men's Apparel	3,06,683
Men's Athletic Footwear	4,35,526
Men's Street Footwear	5,93,320
Grand Total	**24,78,861**