

Walmart Dashboard

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Overview

This dashboard targets the **financial** and operational **teams** in <u>Walmart Hypermarkets</u> <u>Company</u> to give them meaningful insights to help in decision making.

What we will Answer

- How do sales and profits trend over time and what are the seasonal impacts?
- Which product categories are the most profitable?
- What is the efficiency of different shipping methods, and how do they relate to customer satisfaction?
- How does the profitability compare across different states or regions?
- How do discounts affect sales and profitability?
- What are the correlations between employee performance and sales success?
- Which branches or regions require attention based on performance metrics?
- How does inventory management correlate with sales performance?

Information Provided by the Client:

- Sales data
- Profits mentioned the product and category
- Shipping and handling data
- Discount levels across product categories
- Branch and regional performance data

Used Charts

I. Data Boxes:



This section offers a snapshot of key financial metrics. The large font for numbers ensures the attention to the financials health, with total sales indicating revenue, profit showing net earning after expenses, and discounts for marketing strategies.

II. Profit Stacked Chart:

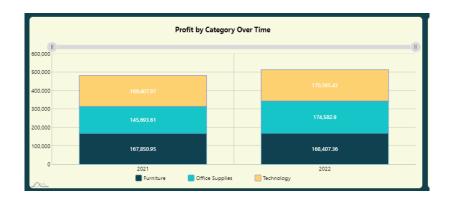


Chart Details: This stacked column chart presents Walmart's annual profit distribution across three categories: Furniture, Office Supplies, and Technology, for the years 2021 and 2022.

Details: X axis denotes the years, while the Yaxis represents profit in USD, used different color for each category to show distribution

Questions Answered:

- Which product category yielded the highest profit each year?
- How did the profit contribution of each category change from 2021 to 2022?

Chart Display: The chart is always visible on the dashboard, providing immediate insights into profit trends over the selected timeframe.

Chart Type:

Column chart to view multiple years values with stacking also to visualize multiple values for each column i have

III. Financials Area Chart:

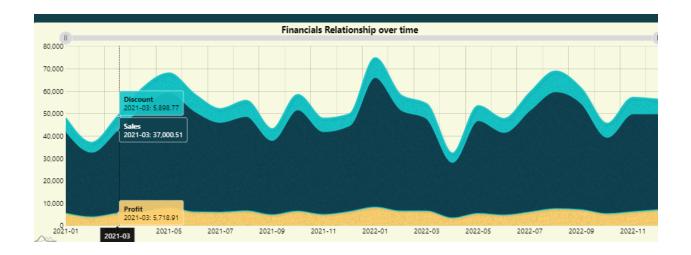


Chart Details:

The area chart, titled "Financials Relationship over time," show the relation of sales, profit, and discounts over a time (by plotting the values of each). The Xaxis is time by month and year, while the Y-axis is the values, and the visual is fixed.

Questions Answered:

- How do sales, profit, and discounts trend together over time?
- Are there specific times of the year where profit peaks or dips noticeably?
- How do discounts impact sales and profit throughout the year?

Chart Display:

This chart is a permanent fixture on the dashboard, instantly highlighting the temporal trends in Walmart's key financial metrics.

Chart Type:

Area Chart which is chosen for this as it provide us with the ability to show trending like normal line chart which used here for time interval and also every element we want to show it's trend can be viewed compared to the another as each element have his color, also the whole dashboard color theme are suitable for eye color defectivness as they are inspired from viridis palette

IV. Profit Distribution Pyramid Chart:

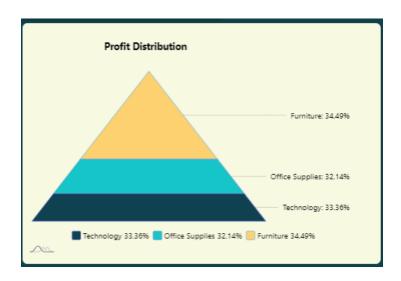


Chart Details:

Pyramid area chart, titled "Profit Distribution," elegantly show the contributions of different product categories to Walmart's overall profit. The Xaxis represents the categorical elements and while the Y-axis is absent, the main aim is to show contribution of each segment to the total profit.

Questions Answered:

What is the percentage contribution of each product category to Walmart's total profit?

How do different product categories compare in terms of profitability?

Which product category holds the largest share of profit within Walmart's portfolio?

Chart Type:

The pyramid area chart is selected for its visual efficiency in comparing categorical contributions to a total. Each layer's width corresponds directly to the category's profit share, making disparities immediately apparent. This format is ideal for highlighting the dominance of certain categories in Walmart's profit distribution.

V. Shipping Donut Chart:



Chart Details:

The donut chart, labeled "Shipping Class," it show the distribution of Walmart's shipping methods. The chart segments represent each shipping type within the total shipping operations, the main aim is to compare the usage percentage of each shipping class.

Questions Answered:

What portion does each shipping class represent in Walmart's overall shipping volume? How do the shipping classes rank in terms of frequency of use?

Which shipping class is the most favored in Walmart's distribution system?

Chart Type:

The donut chart is specifically chosen for its ability to show in clear and compact way the share of each element with spreaded view on 3600 so we can see every thing good also the labels are loaded on the circle border to make better view in zooming and make the viewer know what this label for.

VI. Profit by State:



Chart Details:

The horizontal bar chart, named "Profit by State," shows the profit generated by Walmart across various states. The chart's Xaxis is the profit in currency, while the Yaxis lists the states.

Questions Answered:

Which states yield the highest profit for Walmart?

How does the profitability compare among the top states?

Is there a significant variance in profit between the different regions?

Chart Type:

A horizontal bar chart is suitable as it's good in clarity in displaying categorical data that can extend in length, such as state names. The length of each bar directly correlates with the profit amount which is continuous, providing an good image to the viewer about regional performance

VII. Discount Bar Chart:

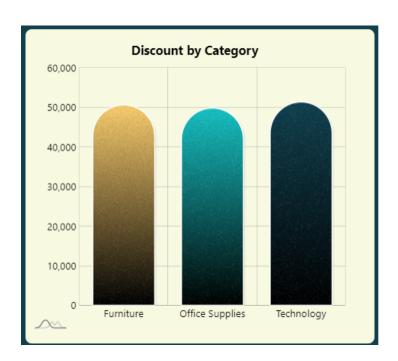


Chart Details:

The column chart, titled "Discount by Category," presents the total discounts provided by Walmart within various product categories. It represent each category on the Xaxis, with the discount amounts along the Yaxis. So we can have a glance of the investments in making discounts approach after we can see in the areachart upper this one what is the role of discounts in the flow of the profit and sales, so here we will have more detailed picture

Questions Answered:

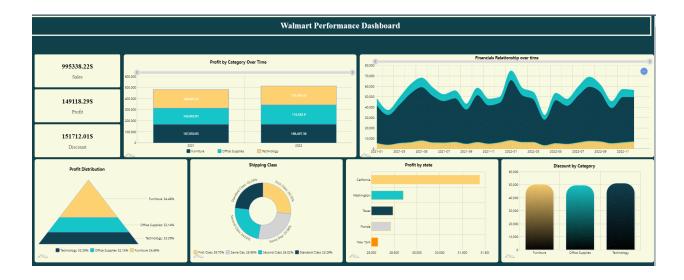
What is the total discount amount offered in each product category?

How do discount levels compare across different categories?

Chart Type:

The column chart is chosen for its straightforward comparison of numerical values across categories, here representing the magnitude of discounts in a clear, and good shapes with grainy texture like the areachart which have a relation with it.

Dashboard Layout



The main structure can be considered as 2 main rows, the first is the upper which have the "AreaChart" where it have to be visible in a clear way and wide space as it have many complex data compared to other, so the first glance with it will take us to other sub driven charts like the Discount chart in the lower row, also the small Financials boxes on the left as they are just indicators need quick glance so they do not need to be in the center of vision, so the lower row has clear and not messy data and the lower row which will be seen after first has more fields to see

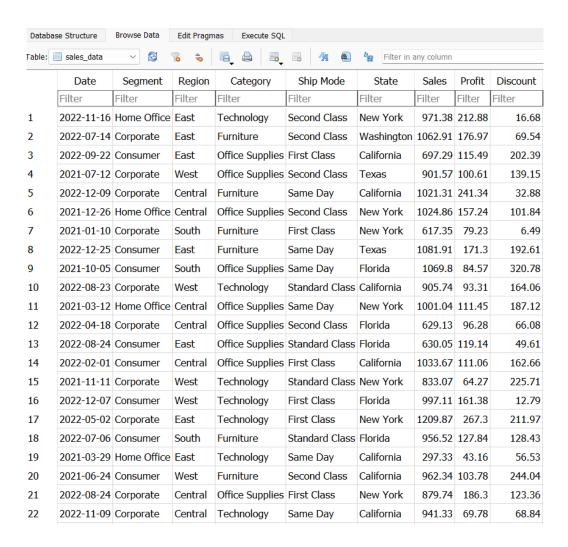
Source Code & DB

Source Code:

For Source Code: Click Here ->

Code

DataBase:



Future Suggestions

We can make more detailed dashboard where we can expand the insights to be more than financials management to customer and product related data or even branched detailed data and go deeper in managing smaller pieces to help in taking actions not in general way, this can be viewed with multiple layers of the dashboard or user defined profiles to make other walmart teams to view it