U.S. Cost and Sales Performance

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There are two Power BI dashboards, providing a comprehensive view of **U.S. Cost and Sales Performance** by visualizing key metrics across different store types and locations. The data comes from the "**Power BI Fundamentals**" course on Coursera. One of the dashboards is simple and the other one has some user elements added to it.

Simple Dashboard

The dashboard combines two primary elements: the relationship between store size, rent, and type, and a performance tracker that monitors sales against targets across various states.

The dashboard features a scatter plot illustrating how rent scales with store size for Core, Digital, and Local stores, helping stakeholders understand cost distribution across different Store IDs. Additionally, the Sales KPI tracker gives a real-time overview of sales performance compared to targets, highlighting both top-performing and underperforming states. By combining these visualizations, the dashboard offers insights into operational efficiency, store performance, and areas needing strategic focus.

The component of this dashboard is as follows:

1. **Scatter Plot (Left Side):**

   o Title: "Total Rent & Store Size by Store ID & Store Type"

   o **Axes:**

      ▪ **X-Axis:** Store Size (measured in sqrt feet, ranging from 0K to 200K).

      ▪ **Y-Axis:** Total Rent (ranging from 0M to 15M).

   o **Color Coded Points Representing Store Types:**

      ▪ **Blue Diamonds:** Represent "Core" stores.

      ▪ **Yellow Diamonds:** Represent "Digital" stores.

      ▪ **Orange Diamonds:** Represent "Local" stores.

   o **Trends:** The points show different store types and IDs with varying store sizes and rents.

   o **Time bar:** Shows time span from 2020 to 2022

2. **Sales KPI Tracking (Right Side):**

- A large red number **18.03M**, representing the total sales achieved so far, with a downward arrow indicating this is **33.93% below** the target of **27.30M**.

- A line graph above the KPI number showing sales trends over time.

3. **Table Listing Store Locations (Right Side):**

   - **Columns:**

     - **StoreLocation:** Different states (e.g., West Virginia, New Mexico).

     - **Total Wage:** Total wages paid in each state.

     - **Total Sales:** Sales performance in each state.

     - **Difference from Target:** The shortfall or surplus in sales performance relative to the target for each state.

   - **Observations:**

     - Some states (e.g., West Virginia, New Mexico) have a negative difference from their sales targets (indicated in parentheses).

     - Other states (e.g., South Dakota, Nebraska) have exceeded their targets (positive numbers).

The interpretation of the dashboard

1. **Store Type and Rent Distribution:**

   - **Core Stores (Blue Diamonds):** These stores dominate the larger store size spectrum and have a wide range of rent values. They occupy larger spaces and pay higher rents compared to other store types.

   - **Digital Stores (Yellow Diamonds):** These stores have mid-range to larger store sizes but appear to manage their rents effectively, with most falling in the middle range of the total rent spectrum.

   - **Local Stores (Orange Diamonds):** These stores are much smaller in size and pay lower rents, which suggests a more localized, possibly community-focused presence.

2. **Sales KPI Tracking:**

   - The current sales performance is **33.93% below** the target, with total sales standing at **18.03M** compared to a goal of **27.30M**. This significant gap indicates a need for intervention or re-evaluation of sales strategies.

o   The sales trend line shows fluctuations, suggesting periods of instability or inconsistency in achieving sales goals.

3. **State-Wise Sales Performance:**

    o   **Underperforming States:**

        ▪   States like **West Virginia** and **New Mexico** are significantly underperforming relative to their targets, with shortfalls of **$13M** and **$7M** respectively. This suggests operational inefficiencies or market challenges in these regions.

    o   **Overperforming States:**

        ▪   States like **South Dakota** and **Virginia** are exceeding their targets, showing positive sales growth despite overall underperformance at the national level.

4. **Overall Insight:**

    o   There is a notable disconnect between the total wage expenditure and the sales performance in some states. High wages do not necessarily translate to higher sales, indicating potential inefficiencies in resource allocation.

    o   The scatter plot indicates that store type and size impact rent significantly, with larger stores (mostly Core stores) incurring higher rents. Strategic decisions regarding store expansion and rent negotiations should consider these factors.

Dashboard (added user elements)

Some elements have been added to the Simple dashboard.

Interactive Elements:

- Date Slicer: Allows users to filter the data based on a specific date range (from 1/1/2020 to 12/31/2022). This dynamic filter adds flexibility for time-based analysis.

- Back Button: A navigation element to return to a page this current page is Drilled through from.

- Reset Button: Allows users to reset the filters and visualizations to the "Reset Data" state.

Bookmarks Pane:

- The right-hand panel shows saved bookmarks, such as "Reset Data" and "2020 Location Differences," allowing users to quickly apply pre-defined views or filters to the dashboard.

Conditional Formatting:

- Added background colour, icons and data bars to the table.