SIPP Sales Performance Analysis– Power BI

**My first freelance project, SIPP Sales Performance Analysis, is a powerful dashboard designed to analyse sales performance and provide valuable business insights. One of the key components of the project is the analysing target with achievements, built using Power BI, to give a visually appealing and easy-to-understand representation of the data.**

**1. Data Cleaning and Preparation**

**Objective**: Clean and prepare the data to ensure it is accurate and ready for analysis.

**Steps Taken**:

* **State Mapping**: A new sheet named "State Mapping" was created to standardize state names across all data sheets. This was necessary to fix inconsistencies and ensure accurate comparisons.
* **Data Correction**: The "Achievement till Nov" sheet was corrected using the state mapping sheet to ensure that all state names matched.
* **Text Editing**: Text in columns was edited to ensure consistency, including converting text to uppercase, lowercase, and trimming extra spaces.
* **Handling Missing Values**: Missing values were identified and addressed where possible. A process for managing missing data in the future was set up to maintain data integrity.

**Key Takeaways**:

* **Data Normalization**: It is important to standardize terms, formats, and units across the data to ensure consistency and reliability.
* **Fixing Missing Data**: Missing data should be fixed quickly to avoid misleading results. Ensuring accurate data entry can prevent these issues.
* **Best Practices for Data Entry**: Establish clear data entry procedures to ensure that all required fields are filled in and standardized.

**2. Data Transformation in Power BI**

**Objective**: Transform the data to make it easier to analyze and visualize.

**Steps Taken**:

* **Data Import**: The cleaned data from the "Target" and "Achievement" sheets was imported into Power BI.
* **Unpivoting Data**: Period-wise columns (like Q and V) were unpivoted to convert them into rows, allowing for better analysis and easier comparison across periods.
* **Data Integration**: The "Target" and "Achievement" tables were combined to create one unified dataset, enabling comparisons between targets and achievements for each period.

**3. Creating Measures in Power BI**

**Objective**: Develop measures to analyze key metrics effectively.

**Steps Taken**:

* **Total Achievement and Total Target Measures**: Measures were created to calculate the total achievement and total target values across all periods. These measures were designed to be dynamic, allowing users to switch between quantity (Q) and value (V) metrics.
* **Dynamic Titles**: Dynamic titles were implemented in Power BI to change based on the slicer selection. When the slicer switches between quantity and value, the title updates to reflect the correct metric.

**4. Dashboard Design and Visualization**

**Objective**: Build an interactive and informative dashboard to display key metrics and insights.

**Pages Created**:

* **Overview of Achievement**: This page provides a high-level view of achievements, with charts showing sales and quantity by brand and region. A slicer allows users to toggle between quantity and value metrics.
* **Top Performers**: A page showing the top 10 performers based on attributes such as product, state,city, zone, party,. This page dynamically adjusts to show either quantity or value based on the slicer selection.
* **Achievement vs Target**: A page comparing monthly achievements with targets. Key performance indicators (KPIs) show the performance gap, and a line chart visualizes both total achievement and target values.
* **Performance Gap**: This page highlights the difference between achievement and target values, making it easy to identify areas for improvement.

**5. Future Recommendations and Data Maintenance**

* **Data Normalization**: Data should always be standardized before analysis, especially when it comes from multiple sources. Consistent text, units, and categories will help avoid errors.
* **Handling Missing Data**: Any missing data should be addressed as soon as it is noticed. A system for quickly identifying and correcting missing values is essential for maintaining data integrity.
* **Validation of Data Entry**: A data validation process should be set up to ensure that all necessary fields are filled out accurately and that the data is standardized.