

AZ Analytics Project Background

AZ_Mart is a retailer selling different products to organizations of different sizes. They have implemented an ERP system to record sales transactions. AZ_Mart has reached out to you for providing Analytics services. As a part of this, you are supposed to deliver a Sales Dashboard in MS Power BI.

Considering that the Excel files are the database of the ERP System and individual excel worksheets are tables, you are required to design and develop the dashboard as per below requirements.

Project Requirements

Details on Data Tables

- **AZ_Masters Excel file**
 - StateMaster
 - RegionMaster
 - CustomerMaster
 - ReturnReasons
- **AZ_Transactions Excel File**
 - SouthSales
 - NorthSales
 - EastSales
 - WestSales
 - OrderProfits
 - ReturnOrders
- **AZ_Targets_19 Excel file**
- **AZ_Targets_20 Excel file**

Data Conditions

- Sales for 4 regions are maintained in 4 different tables. The data structure of all these 4 tables is same.
- There was a system failure in the month of April 2019. Hence, there was no sale recorded for this month in the system.
- Profits for all regions is maintained in OrderProfits table. This table is related to sales table on OrderID.
- ReturnOrders table contain all the orders (specified by ReturnedOrderID) which were returned. This table contain data for all regions. ReturnReasons table contain the reasons of the return. Both table are related based on ID of ReturnReasons.
- StateMaster and RegionMaster provide the customer locations. These both table are related based on state name. Region Master describes which state fall under which region.
- AZ_Targets_19 file and AZ_Targets_20 file stores targets for years 2019 and 2020. The targets are maintained at year and month level. There were no targets set for Mar 2019, Aug 2019 and April 2020.

Business Requirements

- CustomerMaster table – Capitalize first letter of a word of customer name.
- ReturnReasons Table - Capitalize first letter of a word for Reason Desc column.
- Add a column for Customer Type Desc. Below are the conditions:

Customer Type	Customer Type Desc
1	Large Enterprise
2	Mid Enterprise
3	Small Enterprise

- Exclude BU IDs: 305 and 309 from all tables
- Targets are in thousands. You need to multiple by thousand to get exact target.

Dashboard Requirements

1. Values in Cards: Total Sales, Total Profit, Net Sales, Total Customers, Total Orders, Total Returned Orders
 2. Sales by Customer Type Desc
 3. Sales by States
 4. Top 10 Customers by Sales
 5. Sales Vs Targets by Months
 6. Return Values by Return Reasons
 7. Sales, Net Sales and Profits Day Wise
- Definitions: Net Sales = Sales – Return Value.
 - Calculate Total Profit by excluding profits of returned orders.
 - Dashboard Title: Sales Analysis
 - Slicer Filters: Year and Region
 - Set filtering interactivity between all charts. We do not want highlight interactivity.
 - Business needs to see all months of year and respective sale and target. Even if there was no target or no sale, that month needs to appear, so business understands there was no target or sale.
 - Configure a mobile layout.
 - Take care of all designing and formatting aspects like
 - Sorting
 - Text size
 - Data labels
 - Interactivity
 - Filtering
 - Color combinations
 - Proper titles
 - Page Name
 - Etc
 - Validate the data

- Test the dashboard for functionality and whether all requirements are covered
- Deploy the dashboard to Power BI Service
- Configure gateway to refresh the data.