Marathwada Mitra Mandal's

College of Engineering, Karvenagar, PUNE - 411 052

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Award 2019" by SPPU

Department of Computer Engineering

ASSIGNMENT NO: 6

AIM: To implement a mini project.

PROBLEM STATEMENT: A BI report must be prepared to outline the following steps:
a) Problem definition, identifying which data mining task is needed.
b) Identify and use a standard data mining dataset available for the problem.

PREREQUISITES:

• Knowledge of preprocessing and classification .

COURSE OUTCOME:

CO2: Use tools and techniques in the area of software development to build mini projects

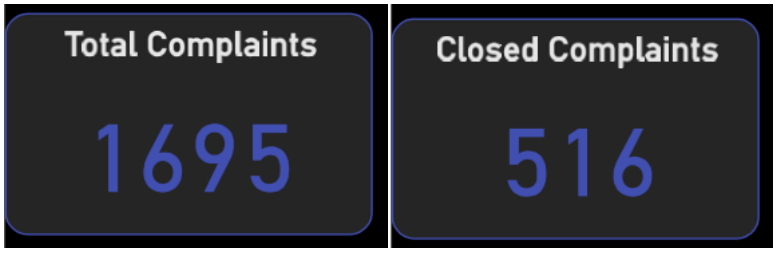
CO3: Design and develop applications on suitable datasets.

Problem Statement: Customer Complaint dashboard.

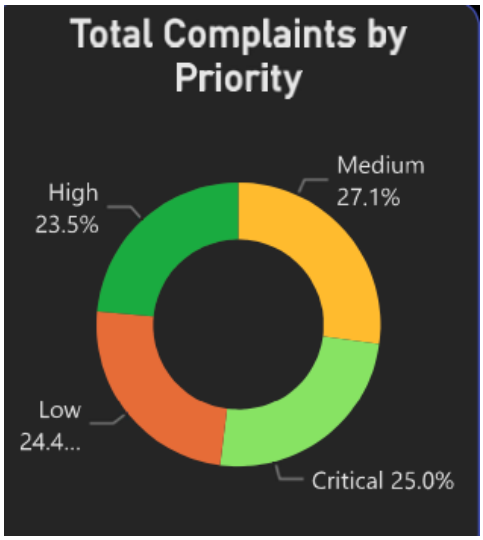
Software/ Hardware requirements: Windows 10, Power BI Desktop

Types of Report used:

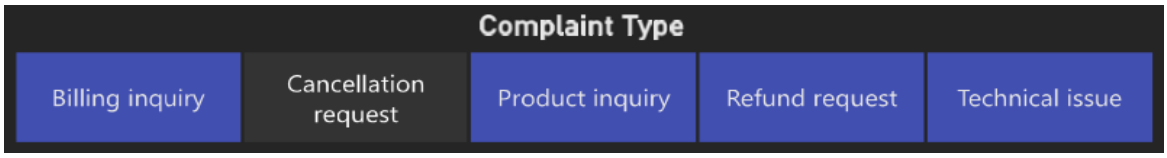
- **Cards**- Single number cards display a single fact, a single data point. They're great for highlighting a key performance indicator (KPI) or other important data points. You can customize the card's appearance and formatting, including font size and color, to make it stand out on your report.



- **Donut Charts-** Doughnut charts are similar to pie charts. They show the relationship of parts to a whole. The only difference is that the center is blank and allows space for a label or icon.

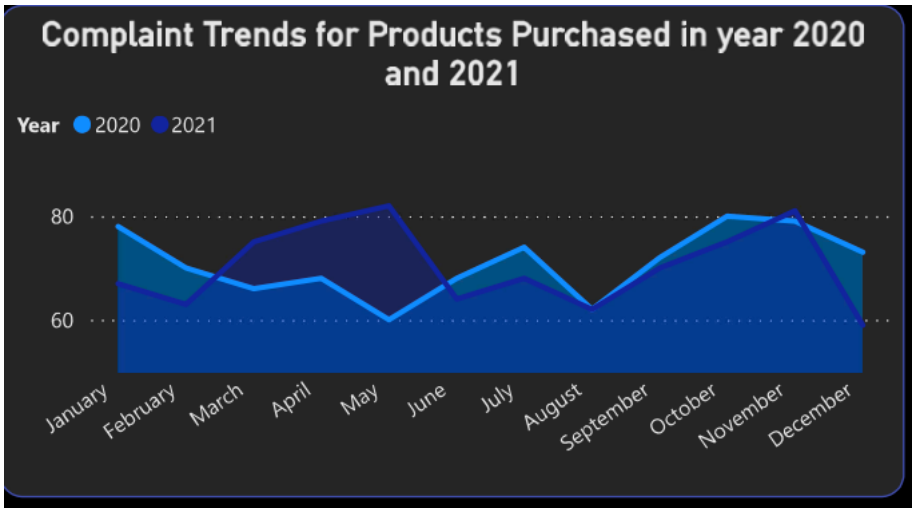


- **Slicers-** A slicer is a standalone chart that can be used to filter the other visuals on the page. Slicers come in many different formats (category, range, date, etc.) and can be formatted to allow the selection of only one, many, or all of the available values.



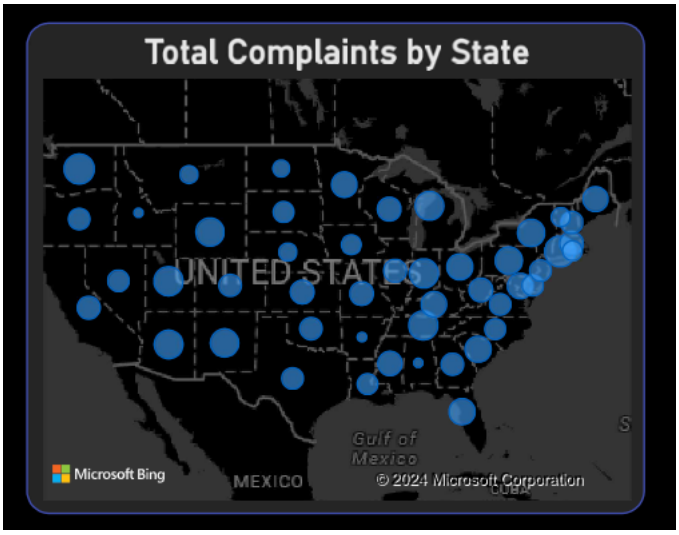
- **Gauge Charts-** A gauge chart, also known as a dial chart or speedometer chart, visually represents a single value within a range. It typically resembles a speedometer with a needle indicating where the value falls on a scale. Gauge charts are commonly used to display progress toward a goal, performance metrics, or levels of achievement, providing a quick and intuitive way to assess data against predefined benchmarks.

- **Area Charts**- Area charts excel in illustrating trends and patterns over time or categories, providing a comprehensive view of data evolution and interactions. Both chart types enhance data-driven decision-making by offering intuitive insights into complex datasets



- **Clustered Barchart**- A clustered bar chart in Power BI visually represents categorical data across multiple variables by grouping bars together for each category. It allows for easy comparison between different categories and subcategories within the same chart, providing insights into patterns and trends across the dataset. This chart type is particularly useful for analyzing relationships and distributions within complex datasets.

- **Map-** In Power BI, a Map is a visualization tool that allows users to represent data spatially on a geographical map. It enables users to plot data points such as locations, addresses, or geographic coordinates, providing a visual understanding of data distribution across regions. Maps in Power BI can be customized with various map styles, layers, and interactive features to enhance data analysis and insights.



Dashboard Layout

This Dashboard enables Analysts to make data driven decisions regarding Customer Complaint and Analysis by improving the understanding of the different types of complaints of customers. These types include billing inquiry, cancellation request, product inquiry, refund request and technical issue.

- **Primary KPI –** Total complaints, closed complaints, customer satisfaction rating.
- **Secondary KPI's –** Total complaints by priority, Complaints through different channels.

STAKEHOLDERS

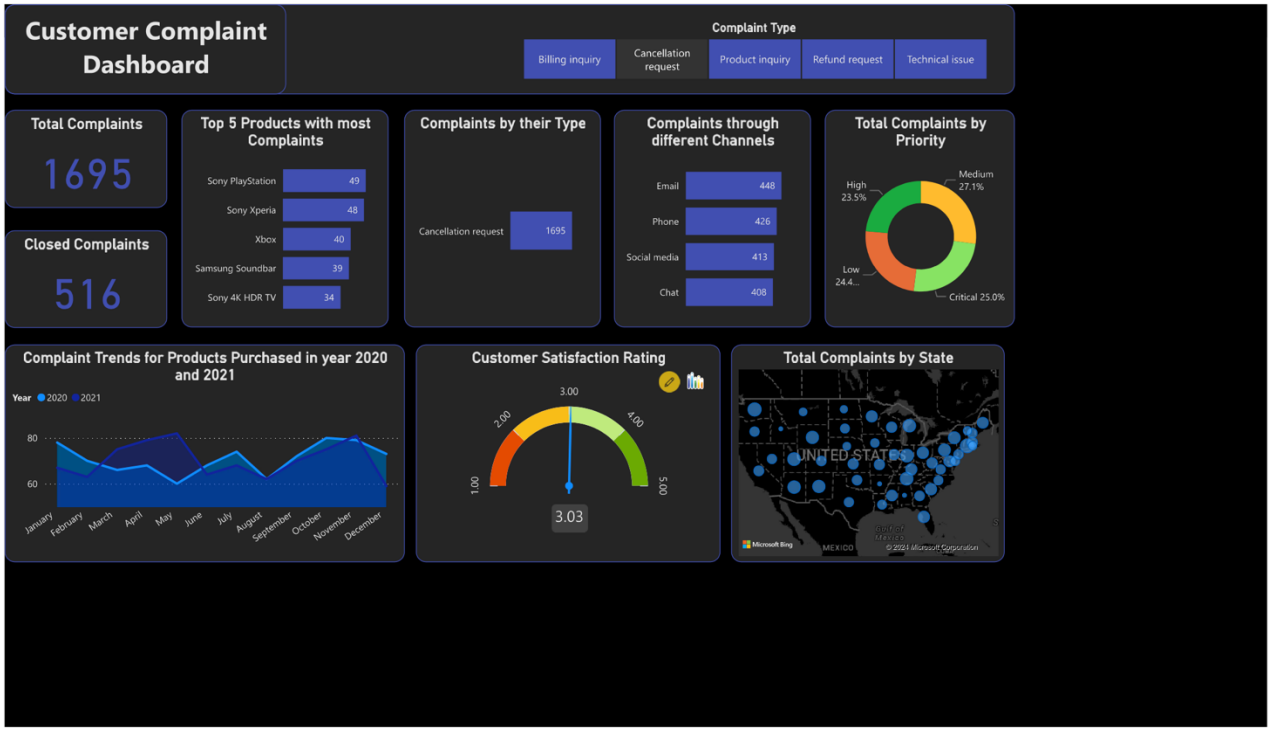
- **CEO**
- **Investors**
- **Payroll**
- **Accounting**
- **Sales Executives**
- **Sales Managers**
- **Sales Crew**

The customer complaint dashboard aims to provide a centralized platform for monitoring and analyzing complaint-related metrics, facilitating proactive issue identification, swift resolution, and continuous improvement in customer satisfaction. By offering real-time insights into complaint data, it enables stakeholders to track trends, identify root causes, assess team performance, and make data-driven decisions to enhance customer experiences and strengthen the organization's reputation.

Dataset used

The dataset used is collected from a freely available data repository (Kaggle). Dataset contains following columns: customer name, customer age, customer gender, date of purchase, product purchased, ticket type, ticket subject, ticket description, ticket status, ticket resolution, ticket priority, ticket channel, first response time, time to resolution, customer satisfaction rating.

Screenshots



Conclusion

In conclusion, the customer complaint dashboard serves as a vital tool for organizations committed to delivering exceptional customer service. By leveraging real-time insights and data-driven decision-making, businesses can proactively address customer concerns, improve service quality, and foster lasting customer loyalty. With a focus on continuous improvement and proactive issue resolution, the dashboard empowers organizations to enhance customer satisfaction and maintain a competitive edge in today's dynamic marketplace.