Project Report: Return Risk Score Dashboard using Power BI:-

1. Introduction:

In the current competitive e-commerce market, knowing customer return behaviour is essential for minimizing loss and enhancing customer satisfaction. This project seeks to examine return patterns of products and develop a Return Risk Score Dashboard with Power BI. The aim is to enable decision-makers to gain insights on which products, customers, or geographies are more likely to return.

2. Abstract:

This project uses historical e-commerce transaction data to identify patterns associated with product returns. A Return Risk Score is computed using Power BI's DAX expressions, and the insights are presented via interactive dashboards. Drill through filters and slicers enhance user interactivity, allowing detailed views per customer or product.

3. Tools Used:

- Power BI Desktop – for building dashboards and DAX modelling.
- Microsoft Excel / CSV – for storing raw data
- Jupyter Notebook (Python) – for preliminary data cleaning and preprocessing (optional)
- DAX (Data Analysis Expressions) – for specific calculations such as return rate, risk score

4. Steps Involved in Creating the Project:

➢ Data Preparation:--

Pre-cleaned dataset to have valid values in Return Status, Order Date, Customer ID, etc.

Managed nulls and formatted data types correctly.

➢ Data Import to Power BI:

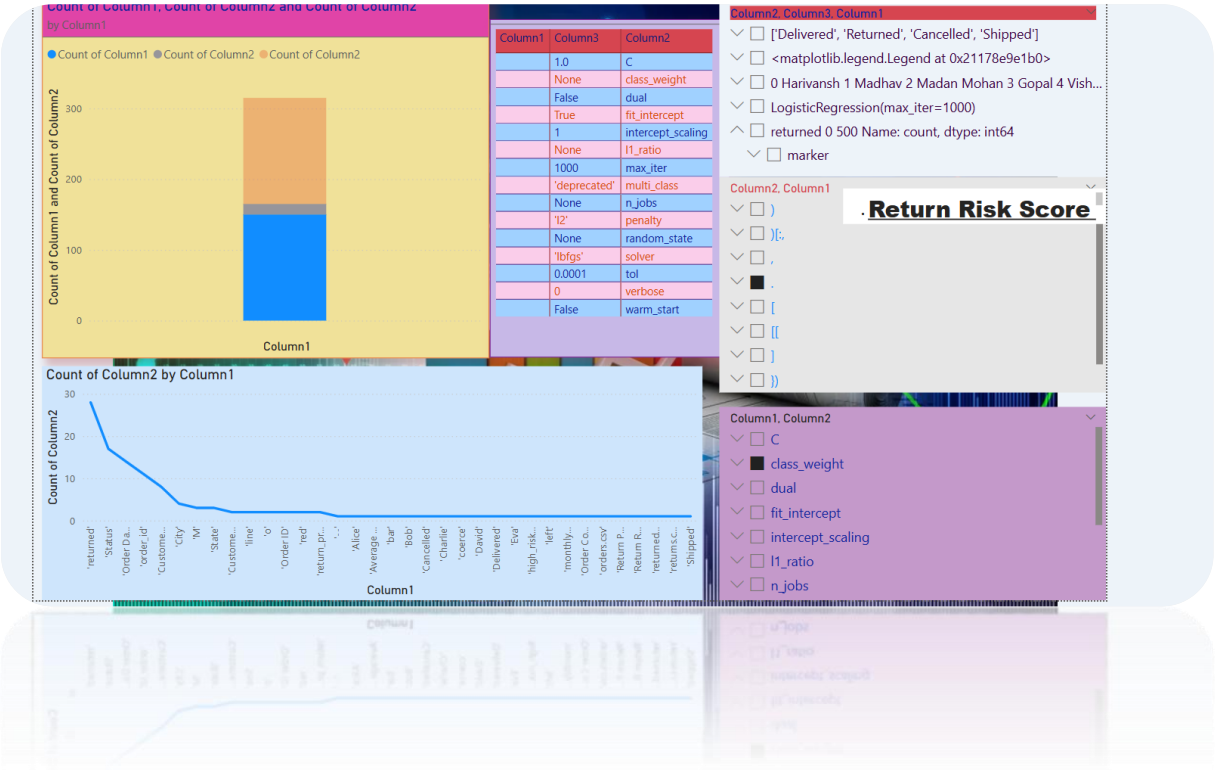
- Imported clean dataset from Excel/CSV into Power BI.
- Calculated Fields using DAX:
- Developed calculated columns such as CustomerReturnRate and ReturnRiskScore based on return trends.

➢ Dashboard Visuals:

- Monthly return trends line chart.
- Return risk by category and region bar charts.
- Conditional formatting return rate tables.
- Drillthrough to support detailed product/customer views.
- Adding Interactivity:
- Inserted slicers for Date, Region, Category, and Risk Score.
- Enabled Back button and tooltips to support smooth drillthrough navigation.

5. Conclusion:

The Return Risk Score Dashboard offers actionable insights into the probability of returns based on past trends. Advanced Power BI visuals, filtering, and drillthrough support intuitive exploration, facilitating stakeholders in making fact-based decisions to minimize return rates and streamline logistics.



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