Project Report

Week 1: Sustainable Supply Chain Performance

Objectives

- Load the provided CSV file into Power BI.
- Use Power Query to transform the data by creating multiple separate tables:
    - Inventory Table
    - Manufacturing Table
    - Supplier Table
    - Supply Chain Table
- Perform data transformations by duplicating the original table and retaining only the relevant columns for each table.

Steps Performed

1. Loading the Data into Power BI

1. Open Power BI Desktop.
2. Click on **Home > Get Data > Text/CSV**.
3. Browse to select the provided CSV file (Sustainable Supply Chain Performance.csv).
4. Preview the data in the import window and click **Load** to bring it into Power BI.

2. Creating Separate Tables with Power Query

For each table, the following steps were performed:

A. Inventory Table

1. Open **Power Query Editor** by clicking on **Transform Data**.
2. Right-click on the original table and select **Duplicate**.
3. Rename the new table to **Inventory Table**.
4. Remove all unnecessary columns by:
    - Selecting the relevant columns:
      SKU, Product type, Availability, Stock levels, Lead times, Order quantities.
    - Clicking on **Remove Other Columns** from the toolbar.
5. Review the data for accuracy and close Power Query by clicking **Close & Apply**.

B. Manufacturing Table

1. Duplicate the original table and rename it to **Manufacturing Table**.

2. Retain the relevant columns:
   Production volumes, Manufacturing lead time, Manufacturing costs, Inspection results, Defect rates.
3. Remove unnecessary columns as described above.
4. Verify the data and close Power Query.

C. Supplier Table

1. Duplicate the original table and rename it to **Supplier Table**.
2. Retain the relevant columns:
   Supplier name, Location, Lead time.
3. Remove the remaining columns and review the data for consistency.

D. Supply Chain Table

1. Duplicate the original table and rename it to **Supply Chain Table**.
2. Keep only the relevant columns:
   Transportation modes, Routes, Shipping costs, Shipping times, Costs.
3. Remove unwanted columns and check the table for completeness.

3. Data Validation

- Each table was reviewed to ensure the correct columns were retained.
- Missing or incomplete data was identified (if any), but no data cleaning was performed as it was not part of the Week 1 task.

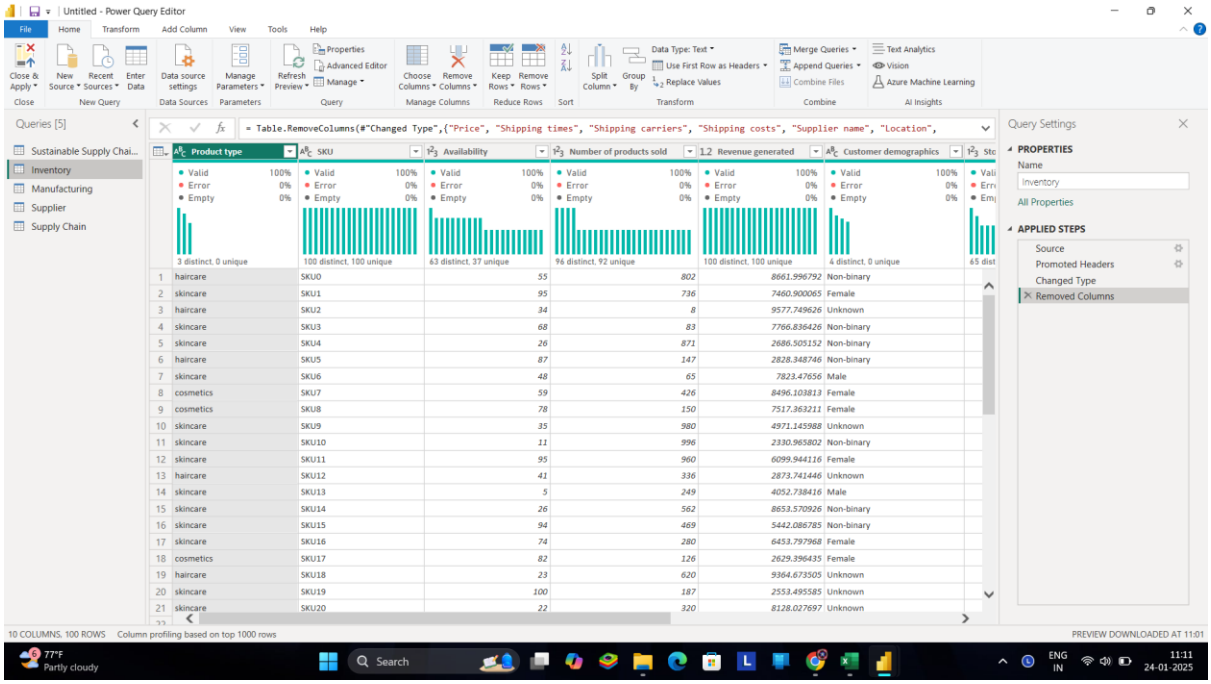
4. Insights and Observations

- The original dataset was successfully divided into four separate tables.
- Each table now focuses on a specific aspect of the sustainable supply chain:
    - Inventory management
    - Manufacturing processes
    - Supplier information
    - Supply chain logistics

Challenges

- Identifying the relevant columns for each table required careful planning.
- Ensuring no data was accidentally removed during transformations.

Screenshot


Untitled - Power Query Editor
Queries [5]
Sustainable Supply Chai...
Inventory
Manufacturing
Supplier
Supply Chain
Query Settings
PROPERTIES
Name
Inventory
All Properties
APPLIED STEPS
Source
Promoted Headers
Changed Type
Removed Columns
10 COLUMNS, 100 ROWS
Column profiling based on top 1000 rows
PREVIEW DOWNLOADED AT 11:01