

CDACL-003-Supply Chain Analysis

Using the available Supply chain data of a company, come up with the following analyses for a company of your choice:

Complete diagnostic report

Also, prepare a dashboard with a comparison report of the supply chain for different products.

About Dataset:

This dataset encompasses various features related to supply chain of a company like Product type,SKU,Price, Availability,Number of products sold ,Revenue generated,Customer demographics,Stock levels,Lead times,Order quantities,Shipping times,Shipping carriers,Shipping costs,Supplier name,Location,Lead time,Production volumes,Manufacturing lead time,Manufacturing costs,Inspection results,Defect rates,Transportation modes,Routes and costs.

Database Credentials:

Note: Connect to the database with the given credentials to fetch the data
<http://18.136.157.135/phpadmin/>

Host Name: localhost

Host User Name: root

Host password: 20sk!@MD\$@*1920!

Database: project_supply_chain_data

Username: dm_team18

Password: VE76@b&i0AqE

Attributes Information:

1. **Product type:** The type or category of the product being sold, which could include classifications such as electronics, clothing, household goods, etc.
2. **SKU:** Stock Keeping Unit, a unique code assigned to each distinct product or item for inventory tracking and management.
3. **Price:** The price of the product, typically in the currency of the country where the purchase is made (e.g., USD for United States).
4. **Availability:** Indicates whether the product is currently available for purchase or out of stock.
5. **Number of products sold:** The quantity of the product sold in a specific period, such as daily, monthly, or yearly.
6. **Revenue generated:** The total amount of revenue generated from selling the product, calculated by multiplying the price by the number of products sold.
7. **Customer demographics:** Information about the customers' characteristics and attributes, such as age, gender, income level, etc.
8. **Stock levels:** The quantity of the product available in inventory at a given time.
9. **Lead times:** The time it takes from placing an order until the product is delivered to the customer.
10. **Order quantities:** The number of units of the product ordered by customers in each transaction.
11. **Shipping times:** The time it takes for the product to be shipped from the seller to the customer's location.
12. **Shipping carriers:** The companies or services responsible for transporting the product from the seller to the customer.
13. **Shipping costs:** The expenses associated with shipping the product to the customer, including packaging, handling, and transportation fees.
14. **Supplier name:** The name of the company or entity that supplies the product to the seller.

15. **Location (Supplier):** The geographical location of the supplier's facilities or distribution centers.
16. **Manufacturing lead time:** The time it takes to manufacture the product from the time the order is placed until it is ready for shipment.
17. **Production volumes:** The quantity of products produced by the manufacturer within a specific timeframe.
18. **Manufacturing costs:** The expenses incurred in the process of manufacturing the product, including materials, labor, and overhead costs.
19. **Inspection results:** The outcomes of quality control inspections performed on the product during or after manufacturing.
20. **Defect rates:** The percentage of defective or non-conforming products identified during quality control inspections.
21. **Transportation modes:** The methods or modes of transportation used to move the product between locations, such as air, sea, road, or rail.
22. **Routes and costs:** The specific routes taken by the product during transportation and associated costs, including fees for tolls, customs, etc.

Analyze the data using Tableau or Power BI and write an analysis report. You can provide your inputs/solution as a PPT presentation and you can explain your project, record it, and send it with the PPT file.