ANALYZING SUPPLY CHAIN DATA

AdventureWorks2019

WHAT IS SUPPLY CHAIN?

Supply Chain refers to the entire network involved in producing and delivering a product or service, from the initial sourcing of raw materials to the final delivery to the customer.

CONTENTS

FIRST:
INTRODUCTION

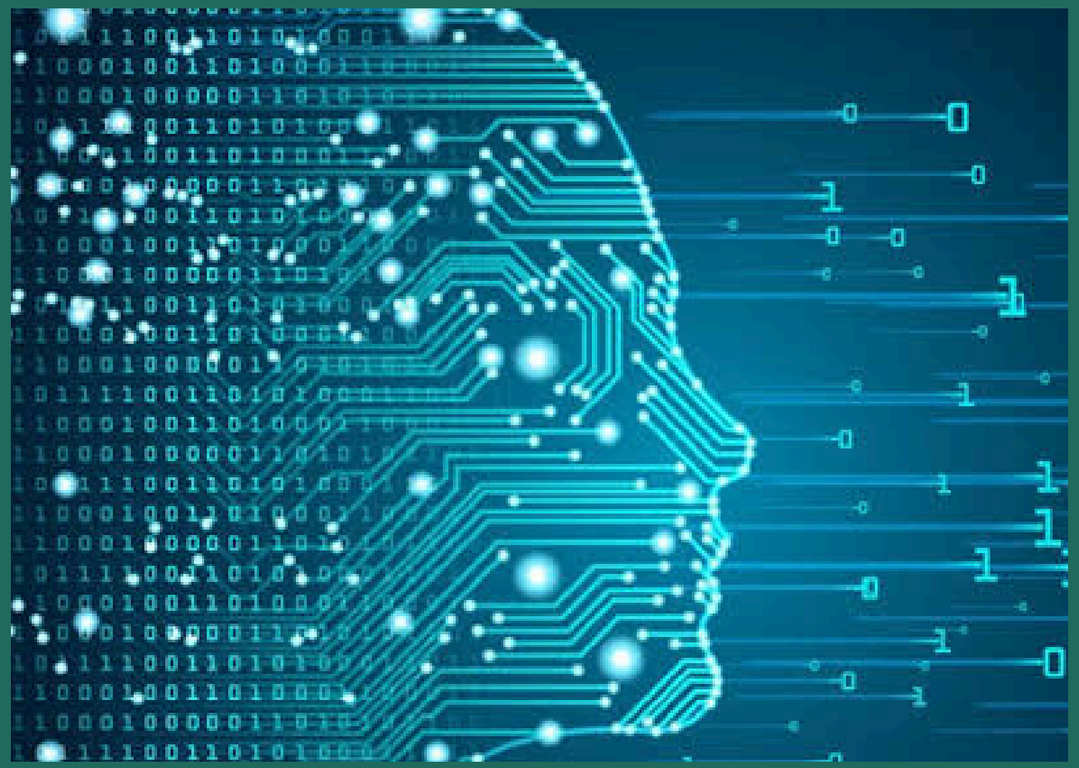
Supply Chain Analysis Using AdventureWorks2019

AdventureWorks2019 is a sample database from Microsoft that simulates a real-world supply chain for a fictional bicycle company. It includes data on products, sales, purchasing, inventory, and suppliers, making it an excellent dataset for supply chain analysis.

SECOND :
OBJECTIVE OF THE ANALYSIS

goal is to analyze key supply chain KPIs (Key Performance Indicators) using SQL and Python, then visualize the results using Power Query, Power BI, and Python. This will help identify inefficiencies, optimize inventory, and improve supplier performance.

THIRD :
SUPPLY CHAIN KPIS



01. Inventory Turnover

02. Supplier Performance

03. Order Accuracy

04. Stock Availability

05. Delivery Performance

06. Cost Analysis

FOURTH :
METHODOLOGY FOR ANALYSIS

01.

1. Extract Data Using SQL
Query tables, Join tables to connect purchasing, sales, and inventory data.

02.

2. Perform Data Analysis Using Python
Use Pandas for data cleaning and transformation.
Apply Matplotlib/Seaborn for visual insights.

03.

3. Visualize KPIs in Power BI
Build interactive dashboards for inventory, supplier, and sales analysis.
Create DAX measures for real-time calculations.

FIFTH :
EXPECTED INSIGHTS

Identify slow-moving or fast-selling products.
Detect supply chain bottlenecks.
Optimize purchasing and inventory strategies.
Improve supplier selection and performance tracking.

TEAM WORK

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THANK YOU FOR YOUR ATTENTION!