END-TO-END SUPPLY CHAIN PERFORMANCE DASHBOARD
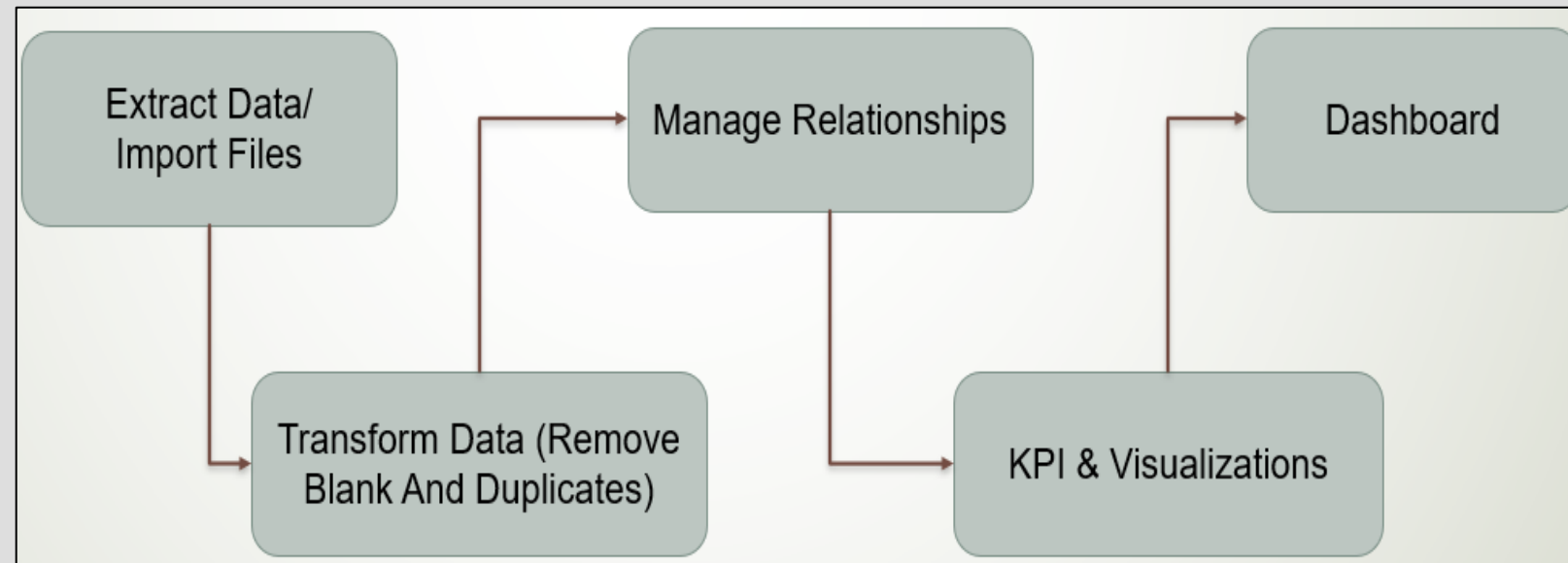
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AGENDA

- ❏ INTRODUCTION

- ❏ PROJECT OVERVIEW

- ❏ KPI DISTRIBUTION ACROSS

  TOOLS WITH DESCRIPTION

- ❏ KEY TAKEAWAYS

INTRODUCTION

Supply chain management is the process of turning raw materials into finished goods and delivering them to customers. The goal of SCM is to improve efficiency, quality, productivity, and customer satisfaction.

PROJECT OVERVIEW

Data Preparation and Integration:

Tools Used: Excel, SQL, Tableau Public, PowerBI Desktop
- Cleaned and structured raw data from Excel source.
- *Normalized data across tables:* Customer, Calendar, Store, Sales, Product, Inventory Adjusted, and Point of Sale data
- Used SQL queries to integrate data and create meaningful relationships using primary and foreign keys.
- Resolved issues like values with spaces and large dataset optimization.
- Tableau-Designed dynamic dashboards for sales, inventory, & performance KPIs.
  - ✓ PackedBubbles, bar charts, and trend lines
  - ✓ ToolTip Charts for visual insights.
- Power BI-Developed reports for stakeholder.
  - ✓ Leveraged DAX Measures - Profit margin, Inventory turnover etc.
  - ✓ Created slicers - Region, and Time period.

KPI DISTRIBUTION ACROSS TOOLS

KPI's	Excel	Power BI	Tableau	SQL
Inventory Value	✅	✅	✅	✅
Total Inventory	✅	✅	✅	✅
Profit Margin	✅	✅	✅	✅
Product-Wise Sales	✅	✅	✅	✅
Sales Growth (MTD/QTD/YTD)	✅	✅	✅	❌
Top Store-wise Sales	✅	✅	✅	❌
Least State-wise Sales	✅	✅	✅	❌
Region-wise Sales	✅	✅	✅	❌
Purchase Method-wise Sales	✅	✅	✅	❌
Inventory Turnover Ratio	✅	✅	❌	✅
Total Revenue	❌	✅	✅	✅
Customer Spend Per Region	✅	❌	❌	❌
Average Order Value	❌	❌	❌	✅
Total Employees on each Region	❌	❌	❌	✅

"The KPIs in this project are distributed across Excel, Power BI, Tableau, and SQL, with some being unique to each tool while others are shared. This approach ensures comprehensive analysis, leveraging the strengths of each platform for deeper business insights."

KPI METRIC	OVERVIEW
Inventory Value	Total worth of stock on hand.
Total Inventory	Overview of available stock
Profit Margin	Profitability percentage of sales.
Product-Wise Sales	Evaluates product performance.
Sales Growth (MTD/QTD/YTD)	Tracks sales performance trends.
Top Store-wise Sales	Identifies best-performing stores
Least State-wise Sales	Identifies states with the lowest sales performance.
Region-wise Sales	Sales distribution across locations.
Purchase Method-wise Sales	Insights into buying behavior
Inventory Turnover Ratio	Measures stock efficiency.
Total Revenue	Sum of all sales transactions.
Customer Spend Per Region	Analyzes regional spending patterns.
Average Order Value	Average revenue per order.
Total Employees Per Region	Workforce distribution insights.

KEY TAKEAWAYS

- Combined data from multiple sources into a clean, structured format for easy analysis.

- Focused on important metrics like Sales & profit Performance, customer-wise sales, and inventory efficiency to guide decisions.

- Overall Revenue were about 388M

- Whereas the Profit Margin is 43.92%

- Compared to Overall Products - Arts & Entertainment as highest sales in over 5 years.

- Used Tableau and Power BI to create easy-to-understand visuals that highlight key insights at a glance.

- Wrote efficient SQL queries to answer complex questions and handle large datasets smoothly.

- Helped improve sales, inventory, and regional performance by turning raw data into useful insights.